Clinical Notes ON STERILITY.

By GRAILY HEWITT, M.D., F.R.C.P.,
PROFESSOR OF MIDWIFERY AND DISEASES OF WOMEN, UNIVERSITY COLLEGE; OBSTETRIC PHYSICIAN TO THE HOSPITAL.

ALTHOUGH it cannot be denied that in a certain number of cases sterility in the woman is due to what may be termed general causes or conditions in other ways unfavourable to the occurrence of conception, yet what is known on the subject of the cure of sterility is consistent with the idea that interference with patency of the passage of the uterine canal constitutes the most common cause of sterility. Hence interest chiefly attaches to the question, What are the abnormal conditions of the cervix uteri and its lower and upper inlet which may interfere with the patency necessary for insemination? Abnormal conditions in the ovaries, in the Fallopian tubes, in the body of the uterus, may cause sterility, but these irregularities are less open to recognition, whereas the cervical canal readily admits of examination. The success which has followed various methods of dilatation, incision, and enlargement of the passage of the cervical canal with the view of curing sterility, amply justifies the amount of attention which has been directed to this part of the uterus in the endeavour to deal with the evil.

One of the latest writers on sterility, Dr. Matthews Duncan, admits the frequent success of treatment of dysmenorrhœa by enlargement of the cervical passage, and the occasional success of the same treatment in curing sterility. But he denies that the enlargement of the passage is the cause of the cure, because, as he contends, the passage is already open. The mechanical dilatation seems "in some mysterious way" to exert a generally beneficial influence under such circumstances. He dwells, however, on the presence of rigidity of the cervix as an important factor in these cases. That dilatation under such circumstances is removal of a mechanical obstruction it seems reasonable to suppose, but Dr. Matthews Duncan denies this. He is in favour of the view, which was, I believe, first suggested by Coste, that the orgasm of coitus tends to produce a patent condition of the cervix. This appears to be the fact, but it follows also that a rigid condition of the cervix would be likely to interfere with this increase in the cervical patency, and would therefore constitute an obstruction.

Although the influence of flexion of the uterus in producing obstruction of the uterine canal has been vehemently denied, clinical facts appear to me to indicate that obstruction may be and is frequently thereby brought about. So far as the question of sterility is concerned, the facts, I believe, are as follows:—Obstruction of the cervical canal at and near the internal os uteri is liable to be produced by marked flexion of the uterus. Under these circumstances the uterine canal becomes flattened out, and the anterior and posterior walls brought into apposition. Such coaptation of the opposite walls of the uterine canal, and affecting the canal for upwards of half an inch according to the acuteness of the bend, more or less, will constitute an obstruction to the occurrence of insemination. The condition of the tissues of the cervix—and of the walls of the canal, in fact—will also materially affect the patency of the canal, for if the uterus has for a long time been in a state of flexion, and has become hardened and consolidated in that shape, the obstruction to insemination will be likely to be greater than in a case where the flexion is of recent origin. There will be "rigidity" of the cervix also to a greater or less degree. When the uterus is found doubled upon itself and the greater part of the canal, constituting a curve of an elliptical shape, which is the condition in many cases of acute uterine flexion, there will arise a tendency to coaptation and virtual closure of the canal. This does not necessarily prevent passage of the sound into the uterus, whence it has been argued, but most erroneously as I believe, that there is no obstruction present. In a sense the canal is open, no doubt, and probably in the early stages of the case, the uterus retaining its flexibility and no "rigidity" of the tissues of the cervix present, no obstructive effects may arise, because the organ is still capable of straightening itself during the orgasm produced by coitus. The occurrence of straightening separates the walls of the tube, and for the time obstruction is removed. When later on the uterus is both rigid and flexed, as frequently happens in long-standing cases of flexions, the case is different, and a practically impermeable condition of the cervical canal, at and near the internal os, supervenes. There are, no doubt, many cases in which the uterus is flexed, and the canal more or less decidedly curved, but in which, nevertheless, pregnancy occurs. The presence of flexion of the uterus does not necessarily imply persistent interference with the patency of the canal. But when the degree of flexion is pronounced and the uterus has become hardened and fixed in that particular shape, then in a considerable number of cases the patency of the canal may be so affected that conception is prevented from occurring. Thus the degree of flexion is probably not so important a factor as its irreducibility. If the uterus is firmly set in its flexed shape, the coaptation of the anterior and posterior walls of the canal, which is liable to be present at and near the internal os uteri in such cases, persists, and an obstacle is thus interposed such as may effectively prevent insemination. The induration of the tissues of the cervix, due to sclerotic contraction, which is liable to be observed in long-standing cases, renders the straightening of the canal more and more difficult. If my interpretation of the phenomena observed in such cases is correct, the cure of sterility, so far as the cervix and os uteri are concerned, will be found to be necessarily associated with measures calculated to remove the source of difficulty, and to thus restore the patency of the uterine canal. Numerous records published prove that conception is far more likely to occur when steps have been taken to improve the state of the uterus in this particular than when these steps have been omitted. Forcible dilatation of the cervix by bougies is one of the methods by which this object can be secured, and is more or less applicable in different cases.

It is disputed by some authorities that mere straightening of the canal is of assistance in regard to improving its permeability. This idea is certainly not borne out by my experience, nor is it supported by the facts adduced by those who rely on dilatation alone for the cure of sterility. When the cervix is dilated it is also straightened. Unquestionably, the patency is improved by dilatation, but inasmuch as the procedure in question has the effect also of straightening the canal, it may be doubted whether the benefit is derivable from the dilatation or from the straightening. The simplest case illustrative of the bearing of this question is that in which the uterus is markedly retroflexed. Here the patency of the canal is interfered with, as I suppose, in consequence of the compression of the cervical canal in the antero-posterior direction, whereby it is flattened and its calibre diminished so long as the bending of the organ remains. Now it is possible, as clinical facts show, that the sterility arising in such a case may be cured either by raising the fundus uteri, and thus doing away with the flexion, or by dilating the uterine canal. But if the mere elevation of the fundus is effectual, what becomes of the argument for the necessity for forced dilatation? It is, in view of this fact, more reasonable to attribute the success of the dilatation to the straightening of the uterus, or at least it is very unreasonable to deny the efficacy of the dilatation *qua* the straightening which is its inevitable concomitant. I do not intend to dispute the efficacy of dilatation, but to show the incorrectness of deductions which have been drawn from that success in regard to the remedial power of straightening *per se*, and the matter seems important in estimating and interpreting aright the results of experience of the two methods of dealing with sterility which have been above alluded to.

In illustration of the foregoing remarks I propose to subjoin the following series of cases, which came under notice during a period extending over eight years, and ending about eight years ago. They were not all treated for sterility, but in most of them the absence of procreation was a noteworthy part of the case. In some the sterility was what may be termed "primary"; in others the sterility was "secondary," there having been one or more children born, followed by a cessation of child-bearing. It will be noted that the method of treatment adopted in these cases was limited, except in about three of them, to straightening of

the canal and maintenance of the proper position of the uterus by a pessary, so that the cases offer evidence of a favourable character in regard to the beneficial influence of this method of dealing with such cases.

CASE 1.—Mrs. J ——, aged about twenty-three, from the west of England, married one year and a half, has had dysmenorrhœa for nine years, which came on first after a day's hunting. Latterly the pain continued the whole of the period. Walking produces exhaustion. Uterus severely retroflexed. Treatment by a combined Hodge and stem pessary. Cure of the displacement, and pregnancy followed with a satisfactory result in the birth of a mature child.

CASE 2.—Mrs. ——, aged nineteen, was sent to me from Yorkshire. She had been married fourteen months. Menstruation profuse, spread over too long a period, lately painful, accompanied with sickness. A pessary has been tried, but found not to answer. It appears that four years before marriage the patient had an attack of scarlet fever, as the result of which she did not walk for one year, being so weak, and then was obliged to use crutches. Has had occasional hysterical attacks since the scarlet fever. The os uteri was found soft, and it was thought just possible that she was pregnant. After waiting a little, however, this proved not to be the case. Uterus found retroflexed. A modified Hodge pessary was adjusted. The pessary was worn for a considerable time. I subsequently learned that the patient became pregnant two years after I had seen her, and delivery took place at term.

CASE 3.—Mrs. ——, aged twenty-eight, the wife of an officer in the army, had been married four years; no pregnancy. She first felt pain in the groin four years ago, with dragging pain in back and in legs, which prevented her standing or walking long at a time. Menstruation regular, a little painful; leucorrhœa. Complained also of a burning heat in the head. The uterus is severely retroflexed, the cavity half an inch too long. Reduced easily, but at once returns to flexed state on withdrawing sound. Uterus is also very low in pelvis. Was formerly accustomed to walk four or five miles at a time, even during menstrual periods. The patient underwent treatment, consisting of the use of a pessary, aided by rest and occasional use of sound. The restoration of the uterus to its proper shape occupied some time. One year and eight months after first consultation she became pregnant, and was delivered naturally at full term.

CASE 4.—Mrs. M. G——, aged twenty-two. Married two years. Has been abroad in a warm climate, and had a miscarriage (probably) just after marriage. Had dysmenorrhœa much since marriage. Exertion and walking very productive of discomfort. Was treated by a pessary before marriage (ring pessary). Has also worn it lately, but it is found to slip. A Hodge-shaped pessary was accordingly introduced, the uterus being found retroflexed. She went away and had a child two years and three months after the commencement of treatment. Seen again two years after birth of the child, it was found that she was wearing a ring pessary. The uterus had again become retroflexed, and was now large and heavy.

CASE 5.—Mrs. L——, married one year. Had an abortion eight months ago from horse riding. Uterus retroflexed acutely. Treated by a Hodge-shaped pessary. Pregnancy occurred about a year later; result satisfactory.

CASE 6.—Mrs. C——, aged thirty-two. Had four children, last one year ago. Uterus retroflexed. Patient a great invalid. Treated by Hodge-shaped pessary, rest, &c. The pessary was worn for a considerable time (nearly three years), at the end of which she was found to be four months pregnant and the pessary was removed. Result good.

CASE 7.—Mrs. ——, aged twenty-two, was sent to me from the west of England. She had been married early, and had two children, the last four years ago. Since that time she had suffered from "ulceration." Had formerly a specific affection of the milder type. Suffers from some degree of prolapsus, bearing down, &c. Menstruation occurs every ten or fourteen days; is scanty and painful. Walking causes great pain. Suffers from nausea. Uterus is retroflexed, easily replaced. A pessary on the Hodge principle adopted. Four months later she was again seen; uterus now in good position, although she has been without the instrument for the last three weeks. It was thought best for her to have a pessary a little longer. This patient had another child shortly after the above treatment.

CASE 8.—Mrs. ——, aged twenty-eight, the wife of an officer, a lady from the north of England. Had had two children, the last four years before. She had been ill for two years, suffering from prolapsus. Previously to that time had much to do, and exerted herself too much. Uterus in a state of acute retroflexion, lying very low in pelvis. She was in a state of great prostration, excessively weak and thin, and a complete invalid. The uterus was much hypertrophied. The treatment consisted in careful reposition of the uterus and adjustment of a pessary, with assiduous attention to dietary &c. At first a rather large pessary was required to keep the fundus from descending posteriorly, and it was some time before the patient seemed to make progress, though the discomfort ceased quickly. After about three months she was able to get about, but continued to wear the pessary much longer. Four years afterwards this patient had another child; she had worn the pessary almost continuously, it having been found impossible to dispense with it.

CASE 9.—Mrs. ——, aged thirty-three, sent to me from Norwood. She had had five children, the last five years before; and since that two miscarriages, the last six months ago. Uterus found to be much thickened, and large universally. Much retroflexed; reduction not difficult; returns to flexed state at once. There is not much pain felt in using the sound. The patient was treated by rest and the use of a pessary of modified Hodge shape, but covered with india-rubber, and the pessary rather thick (ten millimetres). She continued to wear this pessary, feeling quite well, and four years later came to me stating that she was then pregnant. I found her still wearing the pessary, and removed it. She was nearly five months pregnant.

CASE 10.—Mrs. ——, aged twenty-three. Has had one child, about two years ago. Suffers from cough and troublesome uterine symptoms. Uterus retroflexed. A Hodge pessary was applied, and the patient had a second child later on.

CASE 11.—Mrs. ——, aged thirty-three, married nearly two years. Took much walking exercise after marriage. Suffers from severe menorrhagia. Is now unfit for exertion and generally ill. Uterus found to be acutely anteflexed, half an inch too long, and fundus enlarged. At first it was considered to be a case of fibroid growth in the anterior uterine wall, and the uterus was dilated in order to gain access to this. But it resolved itself into a case of acute anteflexion. Pregnancy resulted shortly afterwards, and ended favourably.

CASE 12. Mrs. T——, aged twenty, married seven months when first seen. Suffers much, and is very weak and incompetent for exertion. Uterus much anteflexed. Amenorrhœa. Patient treated for some time by general measures; later on treated by a stem pessary, and subsequently by a cradle pessary. Pregnancy occurred first three years after marriage. Later on the symptoms recurred, and the pessary was again employed, with result of a second pregnancy and this sequence of events was again observed. The uterus was in this case apparently thin walled, and the organ became flexed. It is noteworthy that in this case, at a still later period, the patient again applied for relief, and it was then found that the uterus had become retroflexed, and a Hodge pessary was required to place her in a condition of comfort.

CASE 13.—Mrs. ——, aged twenty-seven, married six months. Suffers from menorrhagia and dysmenorrhœa, also pain after walking. Uterus acutely anteflexed. Treated by cradle pessary. Eleven months after first seen was found to be three months pregnant; still wearing pessary, which was then removed.

CASE 14.—Mrs. ——, aged twenty-seven, married seven years. Suffers from dysmenorrhœa and a very sensitive condition of the uterus. Acute anteflexion. Treated by a cradle pessary and use of sound. Treatment continued for about six months. Pregnancy occurred one year and a half later.

CASE 15.—Mrs. ——, from the United States. Had been married for six years, and had been under treatment for uterine disorder for four years. Principal complaint, dysmenorrhœa, which existed from first menstruation. Lately an operation had been suggested. I found the uterus acutely anteflexed, but the flexion was very high up, and the top of the fundus seemed to be enlarged. Entrance of sound difficult at the seat of the flexion. The patient objected to any operation, and the use of a cradle pessary was advised. By means of a cradle with a rather high bridge the flexion was controlled, and the patient made much easier. She continued to use the pessary (removing it at night) for a considerable time, and I saw her occasionally at intervals of two or three years. The passage of the sound finally

became easier, and nine years after I first saw her, and after fourteen or fifteen years of married life, pregnancy for the first time occurred. The occurrence of pregnancy after so long a continuance of the sterility is especially noteworthy.

CASE 16.—Mrs. ——, aged twenty-six, a lady who had been married nine years, had been under treatment for some time when she consulted me. There had been no pregnancy. Suffering consisted chiefly of a continual severe backache. I found the uterus considerably swollen and much anteflexed. The fundus uteri was very low down in front, and it was exceedingly difficult to raise it from this position. Inquiry appeared to trace this position to a very severe fall in early childhood. The uterus was gradually elevated, and a cradle pessary employed. This occupied much time, and afterwards the uterine canal was periodically dilated by a two-bladed dilator. These measures were finally successful, and pregnancy occurred, followed by a natural delivery three years after I first saw the patient.

CASE 17.—Mrs. ——, aged forty-two. Has been married eleven years; no pregnancy. Menstrual periods too often, and frightfully painful almost always. The uterus appears to be enlarged anteriorly, as if by presence of a tumour. The sound cannot be introduced more than a short distance. Further examination proved that the case was one of severe anteflexion, and the sound was fully introduced. The cervical canal was then dilated from time to time, and a cradle pessary was employed. Nine months afterwards this patient became pregnant, and was seen by me when eight months and a half advanced.

CASE 18.—Mrs. ——, aged twenty-nine, was sent to me from abroad. Had been married ten years and had several miscarriages, the last two years and a half ago. Menstruation very irregular. Has had much travelling of a fatiguing nature. The uterus is markedly anteflexed; the canal very sensitive at internal os. Treated by cradle pessary, with great relief from uterine symptoms. This was removed after some months, but resumed after a long interval. Finally she became pregnant while wearing the pessary, went to her full time, and was delivered of a living child five years after first consulting me and after sixteen years of married life.

CASE 19.—Mrs. ——, aged thirty-two, married seven months. Seen in consultation with my friend, Dr. Murray of Newcastle-on-Tyne. Has suffered from backache severely for some years. Leads a very active life. Menstruation intermittent. Uterus anteflexed, large, congested; the bend of the uterus is high up; sound pretty readily introduced. The patient wore a cradle pessary and the uterine canal was dilated by Dr. Murray. Pregnancy occurred not long afterwards.

CASE 20. Mrs. S——, aged thirty-five, seen with Dr. Burton. Married six years; no pregnancy. Has had treatment for uterine displacement for one year. Suffers from pain and leucorrhœa. Uterus found anteflexed, large; tissues of uterus soft; sound enters pretty easily. Was treated by a cradle pessary. The patient became pregnant, and had a miscarriage five months afterwards. The pessary was discontinued for a time and then again employed. A second pregnancy followed, and there was a threatening of a miscarriage, but this went off and the patient had a living child at full term.

CASE 21.—Mrs. T——, aged thirty-four. Has been married four years. It is thought there was a miscarriage last year. For the last five months she had frequent micturition. Uterus much anteverted, pressing on the bladder. She was treated by a cradle pessary, the uterus being large and heavy. Pregnancy occurred while wearing the pessary one year and a half afterwards, and, I believe, ended satisfactorily.

CASE 22.—Mrs. L——, aged twenty-seven. Had a miscarriage eleven months ago, due to over-exertion. Uterus low down, anteflexed to left side. Os uteri soft; sound difficult to pass. Treated by a cradle pessary. Six months afterwards the patient proved to be pregnant, and with, I believe, a satisfactory termination. The pessary was worn up to about the time of quickening.

CASE 23.—Mrs. ——, aged twenty-six. Has had one child three years ago, since which she has suffered much from backache. Menstruation irregular and painful. Uterus much anteflexed. Wore a pessary for some time. One year later, reported to be pregnant.

CASE 24.—Mrs. ——, aged twenty-seven. Had had two children, the last two years previously. There had been one miscarriage also previous to first child. Some little time ago she strained herself in catching a box, and is now not able to walk; she suffers also from hysterical attacks after exertion. Uterus anteflexed; the anterior lip much elongated. Use of sound a little difficult. A cradle pessary was employed, which enabled her to walk easily. Pregnancy occurred again in three months.

CASE 25.—Mrs. ——, aged twenty-five, the mother of one child nearly three years old. States that she walked too much after her confinement, and has not been well since. Suffers from pain on rising, also from nausea. The periods are long apart. She can walk a little in the afternoon. Uterus acutely anteflexed. Sound very difficult to introduce. Treated at first by an air-ball pessary, then by a cradle pessary. Six months later pains relieved. The pessary continued to be worn for some time, altered in shape occasionally, as much difficulty was encountered in maintaining proper position of the uterus. Two years and a half after commencement of the treatment pregnancy again occurred, the patient having worn a pessary up to that time.

CASE 26.—Mrs. ——, aged twenty-eight. Has had three children, last two years and a half ago. Had a miscarriage eight months ago. Suffering from great depression and hysterical symptoms. Uterus large and much anteverted; os uteri far back. Treated with a cradle pessary for six months. Pregnancy followed shortly afterwards.

CASE 27.—Mrs. ——, aged about thirty-two, the wife of a medical man. Has had two children, the first twelve years and the last three years ago. Suffers much from dysmenorrhœa, menorrhagia, and leucorrhœa. Uterus anteflexed and to the right side; os uteri much congested. General remedies were at first tried, without result. A cradle pessary was then employed. Great relief obtained. Patient had another child soon afterwards. Subsequently the displacement recurred and became very troublesome. The pessary was again successfully employed.

CASE 28.—Mrs. ——, aged thirty-one. Had two children, and two miscarriages since. Menstruation profuse. Has a constant sensation of bearing down. Five months ago she was confined to her bed for a week with pains so severe as to resemble labour pains. Much leucorrhœa and sickness during the last three months, especially in the morning. Feeling of numbness in the lower part of the body. Uterus much anteflexed; it is easy to straighten it, but the flexion immediately recurs. A cradle pessary was adjusted. Six months later she became pregnant. She was advised to be very careful, and the result was good. I saw this patient again five years afterwards. She had had another miscarriage one year after the third child was born, from which I infer that the uterus afterwards resumed its anteflexed shape.

CASE 29.—Mrs. ——, aged about thirty. Has had two children. A year ago had a miscarriage at three months. The ovum, or a part of it, was retained for a month, and puerperal fever occurred. This was in India. Now suffers from pain in the right side, faintings, and general illness. Uterus anteflexed and soft to the touch. A cradle pessary was employed. The patient recovered, and had another child later on.

CASE 30.—Mrs. ——, aged thirty. Had two children, last two years ago; also miscarriage a year ago. Since that time not so well. Has had almost continued loss during last four months. Periods painful. Has had leucorrhœa. Walking very painful. Uterus anteflexed; anterior lip elongated; os crescentic in shape; Nabothian follicles enlarged. A cradle pessary was employed, together with other general treatment. Patient pregnant one year later, the pessary having been removed six months. Now suffering from sickness owing to the pregnancy. Cradle pessary again used to relieve the sickness.

In order to estimate the bearing of these cases on the question of the value of treatment in cases of sterility, the cases must be classified according as they were cases of primary sterility or secondary sterility. Regarding primary sterility, a further division is required into (*a*) cases where no pregnancy had occurred, and (*b*) cases in which pregnancy had occurred but ended in abortion. Respecting the retroflexion cases related, it will be found that three were cases of primary sterility without previous abortion, that in two the patients had had abortions, and that the remaining five were cases in which secondary sterility had existed for a number of years, and was relieved by curing or ameliorating the flexion, which was the assigned cause of the secondary sterility. Regarding the anteflexion cases, nine were instances of primary sterility without abortions, cured by treatment; three were cases in which the patient had been pregnant before, but followed by abortion; and eight

were instances of secondary sterility, relieved by straightening or partially dilating the cervical canal.

Some of the cases mentioned were instances of primary sterility of very long standing. Thus in Case 3 the duration of the sterility was four years, due to an obstinate retroflexion. In Case 8 there was secondary sterility from retroflexion of four years' standing. In Case 9 secondary sterility of six years from a similar cause. Of the anteflexions, in Case 14 there was primary sterility of eight years and a half's duration; in Case 15—a remarkable one—the sterility (primary) was of upwards of fourteen years' duration; in Case 16 the patient had been married without issue for twelve years; in Case 17 the patient first became a mother at the age of forty-two, after a married life of eleven years' duration; in Case 18 the patient had had several miscarriages and been married sixteen years when she became a mother; in Case 20 the sterility (primary) was of six and in Case 21 of four years' duration; in Case 25 secondary sterility was of three years' duration when treatment commenced.

It will be observed that the occurrence of abortion is noted in some of the cases above related. Sterility is not seldom witnessed in women who are liable to abortions. The fact is one of great importance. Some women are apt enough to conceive, but the pregnancy ends in abortion, and this may occur repeatedly. It is certain that in many such cases the abortion is due to distortion of the uterus, which interferes with the proper expansion of the organ as the ovum grows and expands within it. Abortions may occur primarily, but more commonly it is observed that the subjects of them have had one or more children, and that there is established subsequently a liability to abortion. These latter are cases in which the uterus has become distorted after parturition and has settled down into a confirmed state of flexion, which has not been sufficiently severe to prevent conception, but sufficient to prevent healthy growth of the ovum. Hence, arises secondary sterility. In these latter cases the cure of the sterility by treatment of the flexion is an important argument in favour of the view that the confirmed severe flexion is the cause of the liability to abortion and associated sterility.

The principle of treatment which was adopted in dealing with the above cases was to improve the patency of the cervical canal by straightening it, and the method of procuring this increase of patency, which was most particularly and uniformly carried out, was the elevation of the fundus by employment of a suitable pessary. This latter procedure was the sole treatment carried out in several of the cases, but in some of them other methods were adopted. A stem pessary was used in two of the cases mentioned; in several of them the uterine sound was used as an assistance to the pessary in unfolding the flexion, and thus increasing the cervical patency. So far as these cases go, they prove that the method of treatment adopted was a successful one, and bear testimony to the efficacy of the principle of treatment carried out in these instances. In only two of the cases was dilatation of the cervix systematically carried out, and in these the dilatation was employed to a slight extent only, and not so fully as has been adopted by practitioners of repute during the last three or four years. The above cases were treated by me some years ago. Judging from more recent experience, I conclude that a more extensive adoption of the dilatation method than was carried out in the above series would be profitable, and probably the list of successful instances of the cure of sterility during the period of my practice covered by the above cases would have been longer had dilatation treatment been more largely carried out. The experience above recorded exhibits the utility of mere straightening and rectification of the positions of the uterus. Dilatation has the effect of straightening and replacing the uterus, and it offers the further advantage of getting rid, for a time at all events, of that rigidity of the cervix which is probably a great obstacle to the occurrence of pregnancy when associated, as it so frequently is, with a chronic long-standing flexion. It may be considered, possibly justly, as superior to mere straightening and maintenance of the proper position of the uterus on account of the greater rapidity with which the result is effected; but judging from cases which I have thus treated, the use of a supporting mechanism after dilatation will be found advisable if the permanent restoration of cervical patency is aimed at. For in long-standing cases the uterus may, after full dilatation, return in a few months to its abnormal flexed condition, and the patency of the cervix is liable to be again diminished.

THE BLOOD IN PERNICIOUS ANÆMIA.[1]

BY S. M. COPEMAN, M.A., M.B. CANTAB.,
DEMONSTRATOR OF PHYSIOLOGY, ST. THOMAS'S HOSPITAL; LATE SCHOLAR OF CORPUS CHRISTI COLLEGE, CAMBRIDGE.

PERNICIOUS or idiopathic anæmia has been recognised as a distinct disease since Addison first described it in 1855, but Dr. Byrom Bramwell appears to have been the first to call attention to the peculiar changes in the blood which are characteristic of this affection. Subsequent observations have in the main confirmed his descriptions, although on certain points there has been considerable difference of opinion; and accordingly when, last year, four cases of pernicious anæmia were admitted into the wards of St. Thomas's Hospital, under the care of Dr. Bristowe (curiously enough, all at about the same time), I seized the opportunity of examining the blood on a number of different occasions, with the results narrated below. The clinical history of these cases is briefly as follows:—

CASE 1.—A single woman, aged twenty-seven, who eleven years previously to admission into hospital had suffered from rheumatic fever and pericarditis. For nine months jaundice had been coming on, although the fæces remained normal in colour. The catamenia had not appeared for the same length of time. The patient was very anæmic, the skin being yellow and moist. The area of cardiac dulness was somewhat increased, and at the base the second sound was reduplicated on the left of the sternum. There was considerable pain in the right hypochondrium. The stools contained an abundance of bile, and there was no trace of bile pigment or acids in the urine. From the time of admission onwards there was an evening temperature averaging 101°, and never falling below 99·2°. After a month in the hospital there was a sudden rise to 103°, accompanied by much pain in the cardiac region, and a faint systolic murmur was found to have developed at the apex. About six weeks after admission the eyes were examined by the then house-physician, Mr. Hutton, who found optic neuritis present in both discs, which were reddened, swollen, and hazy. There were also a number of retinal hæmorrhages. The blood was pale, and coagulated rapidly; the red corpuscles numbered only about 36 per cent. of the normal quantity, and on drying a thin layer of the blood the corpuscles broke down, and crystals of hæmoglobin were formed. The patient was put on liquor arsenicalis (ten minims three times a day), and improvement commenced at once, the patient feeling better, although for a time the anæmia seemed even more marked. Before another month had elapsed the retinal hæmorrhages were becoming rapidly absorbed—those seen, four or five in number, being very ill defined and pale. The blood was also much improved. The red corpuscles (which now reached 60 per cent. of the normal number) no longer broke down, and consequently no crystals could be obtained. The patient went out three months after admission, having made steady progress towards recovery from the time that she was put upon arsenic.

CASE 2.—A leather finisher, aged thirty-two, was admitted in February, 1886, with a history of rheumatism five years previously, and frequent attacks of epistaxis for the past four years. The skin was of a pale yellowish colour; the conjunctivæ very anæmic, but apparently not jaundiced. There was a blowing systolic murmur at the apex, conducted into the axilla, and a faint double murmur at the base. Temperature 100°. On examining the eyes the optic discs were very pale; there was marked red and black stippling of the choroid but no hæmorrhages. The blood was much impoverished, the red corpuscles being present to the extent of 48 per cent. of the normal number only; they were under-sized, light-coloured, and did not run into rouleaux. A number of small highly coloured corpuscles about 2 μ in diameter were seen. Many of the larger corpuscles were of an oval or pyriform shape; they did not tend to break down, but their colouring matter was extruded in an amorphous form. At several subsequent examinations similar appearances were observed. The patient gradually improved, and was discharged on May 1st,

[1] Abstract of paper read before the Medical and Physical Society of St. Thomas's Hospital on February 17th, 1887.

but has recently been readmitted in about the same state as before.

CASE 3.—The patient was a woman, aged thirty-three, who had never been well since her confinement nine years previously. Her chief complaint was of almost continuous pain in the flanks, sometimes causing vomiting, and of shortness of breath. Though very anæmic she appeared fairly nourished; both the liver and spleen were enlarged and tender, but no enlarged glands were found. The ophthalmoscope showed marked red and black stippling of the choroid in both eyes, while in the left several patches of hæmorrhage were seen. The house-physician notes: "The blood is pale and thin; no increase of white corpuscles; the red are irregular in shape, for the most part oval or pyriform, and are smaller than normal, but there are some even larger than those found in health. In parts the colouring matter seems to have separated out from the corpuscles and to lie in red lines between them." I found the red corpuscles to be 47 per cent. of the normal number. Temperature 100·6°. Later on some œdema of the face and eyelids was noticed, followed by swelling of both legs, which, however, gradually passed off, and under the administration of arsenic the patient improved greatly in colour and appearance, the change for the better in the state of the blood also being very noticeable when she was "presented" after a stay of a couple of months in the hospital.

CASE 4.—A brewer's man, aged fifty-seven, admitted in February 1886, complaining of severe diarrhœa. He had suffered from rheumatism some time previously. He was pale, emaciated, and aged-looking, the skin being very pale and dry. No eruption. Temperature 100°. Several retinal hæmorrhages were noticed in the eyes, and on examining the blood the red corpuscles were found to number only about 40 per cent. of the normal quantity. They were very irregular in shape, and pale, although some which were very minute were dark-coloured. On drying the blood on a slide by spreading it out with a needle, the corpuscles broke down into a uniformly granular-looking mass, which, when the slides were examined the next day, seemed to have disappeared almost entirely, while in its place were seen numberless acicular crystals of hæmoglobin. In parts where a few corpuscles had persisted entire the crystals were seen to be directly derived from them, and by good fortune I was able in some instances to watch the gradual change into perfect crystals, which in these cases were larger than those derived from the broken-down material. The patient went out about a month after admission by his own desire on finding that he had not increased in weight during the previous week. He was not quite so anæmic in appearance as when admitted, and had gained considerably in strength during his stay.

In a fifth case, that of a policeman who came into the hospital some time before the others, the disease appeared to ensue on an attack of malaria, contracted in the Kentish Marshes where he had been sent to prevent prize fights. The blood presented similar appearances to those noted in Case 2, the masses of amorphous pigment being very numerous and exceedingly obvious from their large size, while the corpuscles were few in number, pale, undersized, and irregular in shape. (See Table.)

In connexion with these cases there are two points to which attention should particularly be directed, the first being the pathology of the blood, and the second the effect produced primarily on the blood, and so on the patient, by the treatment pursued.

First, as to the condition of the blood. It has long been known that the *number* of the red corpuscles in severe cases is largely diminished, the individual corpuscles being both smaller and paler than in a normal state. Dr. Bramwell observed, in addition, that their *shape* was liable to great variation, the normal change being from circular to pyriform, this doubtless being due to a diminished consistence of the stroma. He also mentioned the presence of nucleated red corpuscles, which have also been noticed by other writers. But in all probability the nucleation is only apparent, being due to the fact that the hæmoglobin has become accumulated towards one part of the cell, as a very similar appearance can be produced artificially in human blood by the action of tannic acid. The *size* of the red corpuscle is diminished often to a great extent, the diameter usually ranging between 4 μ and 7 μ, although occasionally there are seen some which exceed in diameter the largest of those found in health, the measurement in exceptional cases being even as much as 14 μ. Dr. Hermann Eichorst notes the presence of corpuscles of a very small size, not more than 3 μ in diameter, which differ from the others in that they are globular, instead of the usual biconcave form, while they are also of a much deeper red than normal. Dr. Bramwell admits the presence of these minute corpuscles, but has failed to observe their deeper colour, in connexion with which statement it is curious that I rarely failed to find them. The *number* of red corpuscles present is much reduced, the hæmocytometer showing an average of from 35 per cent. to 45 per cent. of normal. The corpuscles are also apt to change their form as noted above, becoming pyriform or spindle-shaped. When the consistence of the stroma is thus altered, the colouring matter tends to leave the corpuscle, as mentioned in the notes of the cases; but at the same time does not necessarily become dissolved in the blood plasma, at all events entirely, some of it remaining in amorphous masses. This appearance, which was seen in two of the cases, has not, I believe, been observed before. It is also worthy of note that the corpuscles do not form rouleaux, but appear to cohere by their edges, sometimes even appearing to become partially fused with one another. The *colour* of the corpuscles is much less intense than in health, if those of the small globular variety be excluded; the colourific intensity of the blood, as determined by the hæmoglobinometer, being often found to be much less than can be accounted for merely by the diminution in number of the corpuscles. Eichorst describes the liquor sanguinis as being of a serous amber colour, and states that it coagulates with difficulty, but this has not been borne out in these cases; neither can I agree with him that the colourless protoplasmic granules found in normal blood are completely absent, as in each case they were noted as being, if anything, more numerous than usual.

In three of these cases it was found that on rapidly drying a specimen of blood taken from the finger, the red corpuscles readily broke down, sometimes disappearing entirely, while sometimes a coarsely granular appearance was left. These specimens showed after a time, in place of the corpuscles, an aggregation of rhombic crystals of hæmoglobin, the spontaneous appearance of which in anæmic blood has not apparently been previously noticed. The fact of their appearance in this manner without special preparation is the more curious when it is remembered that under ordinary circumstances it is practically impossible to obtain hæmoglobin crystals from normal human blood. From the blood of some of the lower animals crystals may be obtained with the greatest ease, notably from the guinea-

Tabular View of Cases.

No.	Sex.	Age.	Occupation.	Supposed cause.	General appearance.	Retinal hæmorrhages.	Diarrhœa.	Vomiting.	Fever.	Complications.
1.	F.	27	Single	Rheumatic fever	Jaundiced; no emaciation	Yes	No	Yes	Yes	Epistaxis; pain in long bones; systolic murmur.
2.	M.	32	Leather finisher	Rheumatism	Very anæmic, with yellowish tint; no emaciation	No	No	No	Yes	Epistaxis; paroxysmal cough; systolic murmur; albuminuria.
3.	M.	57	Brewer's man	Rheumatism	Emaciated, pale, and aged-looking	Yes	Yes	Yes	Yes	Dry cough; pain in long bones.
4.	F.	33	Married	Pregnancy	Pale, brownish-yellow; no emaciation	Yes	No	Yes	Yes	Œdema of legs; pain in long bones.
5.	M.	47	Policeman	Malaria	Very anæmic; no emaciation	Eyes not examined	Yes	Yes	Yes	Profuse sweating; pain in long bones; hæmic murmur.

pig and rat or mouse; but human hæmoglobin, being soluble in a much greater degree, is consequently much more difficult to obtain in the crystalline form, the order of solubility, and so of facility of crystallisation, being given by Gautier in the following order for various animals—(1) rat, guinea-pig, squirrel, and then, with a great interval, (2) cat, dog, horse, and man. In two of the cases described above, in which the corpuscles persisted, no crystals were developed, but amorphous masses of brown pigment were seen scattered among the corpuscles, the difference possibly being that in the one case hæmoglobin and in the other hæmatin only was extruded, the globulin then being retained in the stroma. That hæmatin, which is non-crystallisable, and globulin should be capable of dissociation thus is borne out by the presence in old blood clots of pigmented crystals of hæmatoidin, which is apparently identical with iron-free hæmatin. In two

FIG. 1.

Specimen of blood from Case 1. The blood-corpuscles have entirely disappeared, and in their place are seen a quantity of rhombic crystals of hæmoglobin. (Obj., Zeiss D).

FIG. 2.

Showing crystals starting from red corpuscles. (Case 3.)

instances the specimens of which were taken from Case 3, the crystals were seen to be directly derived from the red corpuscles (Figs. 2 and 3), and their formation was watched from time to time. An exactly similar appearance is described by Dr. Lionel Beale as having been witnessed by him in the case of hæmoglobin crystals obtained from guinea-pig's blood, the crystals being comparatively large when springing from an entire corpuscle—smaller when arising from the portions of one which has partially broken down.

Considerable difficulty is experienced in preserving specimens of hæmoglobin crystals as permanent objects. The beautiful crystals from guinea-pig's blood are readily obtained, but, in whatever way they may be mounted, generally lose brilliancy and the sharpness of their angles after a time. Consequently, it was to be expected that human hæmoglobin, being so exceedingly soluble, would not be very permanent, and this unfortunately appears to be the case, as many of my specimens have deteriorated considerably since they were first prepared. The only description of crystals occurring in the blood in disease is apparently that of Charcot, who speaks of small lenticular crystals, named after him, as having been noticed in the blood in leucocythæmia. Gowers states that they are a post-mortem phenomenon, and also adds that they are not peculiar to this disease. These crystals, which Charcot considers to be of a proteid nature, differ in every respect from those just described, one important point of difference being that in these cases of pernicious anæmia the destruction of the red corpuscles was a necessary antecedent to the appearance of the crystals, while in Charcot's cases it was not so.

It is necessary to add a word or two on the treatment of this disease, since the appearances described seem to have a bearing, if only a negative one, on this point. In all the

FIG. 3.

Another preparation also from Case 3.

FIG. 4.

Crystals from red corpuscles of guinea-pig's blood. (After Beale.)

cases arsenic was prescribed in the form of liquor arsenicalis, and with the best results. To Dr. Byrom Bramwell we owe not only some of the earliest descriptions and the first real investigation of this disease, but also the use of this drug in treatment, in support of which may be mentioned the not uninteresting fact that in the cases in which crystals of hæmoglobin were at first obtained none could be found after the patient had been for a few days under the influence of arsenic, even though the blood did not at the same time show any very considerable change in the number of corpuscles or in the amount of hæmoglobin present, while in two or three subsequent cases in which the drug had been administered before the patient was examined, but in which the hæmocytometer showed a percentage of corpuscles as small as that in the cases in which crystals were obtained, none were ever found. These facts appear to show pretty distinctly that arsenic has a very immediate action for good on the blood in this disease, especially as all the patients, notes of whose cases have been given, left the hospital greatly relieved, if not absolutely cured. One of these, it must be

stated, has lately been readmitted, and it is possible that the disease may reassert itself in all of them after a time, as, it seems, is not unfrequently the case; still, the effect of this drug, at any rate for the time, appears to be little short of marvellous.

In conclusion, my best thanks are due to Dr. Bristowe, to whose kindness I am indebted for permission to make use of the notes of the cases that have been quoted.

York-road, S.E.

CASE OF MYELOID SARCOMA, INVOLVING BOTH SUPERIOR MAXILLARY BONES, TOGETHER WITH THE HARD AND SOFT PALATE;

REMOVAL OF GROWTH WITH THE GREATER PART OF BOTH BONES; RECOVERY.[1]

BY F. BOWREMAN JESSETT, F.R.C.S. ENG.,
SURGEON TO THE CANCER HOSPITAL.

S. G. B——, a married woman, aged thirty-five years, was admitted into the Brompton Cancer Hospital on Oct. 31st, 1886, with a large growth involving the whole of the hard palate, and projecting into the mouth to the line of the teeth on both sides. The patient's grandfather died of epithelioma of the lip; no further history of cancer in the family; father and mother both living and healthy; no history of phthisis or syphilis. She first noticed a lump in the hard palate twenty-one months ago, which grew rapidly until it attained the size of a bantam's egg and projected considerably into the mouth, interfering with mastication and speech. Six months after first noticing the growth she went to Guy's Hospital, where she was operated upon by Mr. Clement Lucas, through whose courtesy I have obtained from Mr. Targett, the surgical registrar of Guy's Hospital, the following particulars:—"She was admitted into the hospital on June 11th, 1885, under the care of Mr. Clement Lucas for a myeloid sarcoma of the hard palate which had existed about six months. On June 16th, 1885, Mr. Lucas excised the tumour with scissors, and then scraped the base, applying tannic acid to stop hæmorrhage; no portion of the hard palate was removed, and on June 28th she was discharged, the wound having granulated nicely." In June, 1886, she was admitted into St. Thomas's Hospital, under Sir W. Mac Cormac, with extensive recurrence of the disease. On examination it proved to be a very vascular sarcoma, with definite myeloid cells and spicula of bone. She noticed the edges of the opening in her palate, the result of the removal of the tumour, swollen and tender about three months after she left Guy's Hospital, and from that time the growth extended rapidly.

State on admission.—There is an irregular mass implicating the whole of the hard palate and the inner aspect of the gums on both sides, as far forward as the first molar tooth; the soft palate is also infiltrated with the disease to within a quarter of an inch of its posterior edge; the growth extends upwards into both nostrils, but more so on the left, where it is seen protruding for some considerable distance, presenting much the appearance of a large polypoid growth. The patient cannot breathe through either nostril. By digital examination of the pharynx, the tumour is felt pressing back upon its posterior wall, and it is impossible to ascertain how high it extends posteriorly. The patient suffers comparatively little pain from the growth, but complains chiefly of the difficulty in eating, the movement of the tongue and capacity of the mouth being limited by the growth (which is the size of a large lemon) projecting into it. There has never been any hæmorrhage. The tumour feels hard but elastic to the touch, is firmly fixed, and appears to extend deeply into the antrum on either side. There is a slight fulness over the left antrum, but the teeth on both sides are very good, and in no degree loosened.

At the urgent request of the patient, I consented to endeavour to remove the growth, although at the time I feared I should not be able to do so without removing the whole of both the superior maxillary bones; but I determined in the first place to endeavour at any rate to leave the infra-orbital plates intact if possible, and I hoped to be able to accomplish this, as from the history of the case it appeared clear that the growth commenced solely from the hard palate or from the alveolar process. On Nov. 9th the patient being placed fully under the influence of an anæsthetic I made a most careful examination of the tumour, but could find little more than I had done previously. The growth, however, extended so far back and appeared so firmly fixed that I had some misgivings as to the result of the operation.

Operation.—I made two incisions, extending from either angle of the mouth, upwards and outwards towards the inner angle of the orbit; I then reflected the flap thus formed, which included the nose, upwards over the forehead, and in this manner thoroughly exposed the whole of the front of the growth and superior maxillary bones. I next, with a fine incision saw, divided both bones about half to three-quarters of an inch above and parallel to the alveolar processes through their whole extent, and, with a raspatory used as a lever, separated this portion of the bones from the upper and remaining halves. Having thus loosened this portion of the bones with the tumour attached, I seized it with the lion forceps, and at the same time introduced the index finger of my left hand into the pharynx behind the growth, and in this manner was enabled gradually to remove the whole of the disease, with the exception of that portion which had grown into the antrum on the left side. This, however, was quite detached, and was subsequently easily removed by means of Volkmann's spoon. There was scarcely any hæmorrhage, and the disease appeared to have been entirely limited to the portion of bone removed, having grown from thence upwards and insinuated itself into the antrum and between the ethmoidal spongy bones. The skin flaps were next brought together with harelip pins and one or two horsehair sutures, and the whole surface dusted over with iodoform. The patient, who stood the operation remarkably well, was returned to bed. She was fed for the first twenty-four hours with nutrient enemata, after which time she took food by the mouth from a feeding-cup with a piece of indiarubber tubing attached, sufficiently long to pass over the root of the tongue.

Nov. 10th.—Patient has passed a good night. Temperature normal.—12th: Patient still doing well. The mouth is kept washed out with a solution of boro-glyceride; there is very little discharge; takes nourishment well.—15th: Two of the harelip pins removed. Wound healthy; no pus.—16th: The remaining harelip pin removed. Wound quite united. The patient from this point made an uninterrupted recovery, and is now (February 24th, more than three months after the operation) quite well. Her speech is peculiarly good; in fact, with the exception of a few letters, she speaks well. There is little or no deformity. She is now being fitted with a plate, by which means it is hoped to enable her to masticate fairly well.

Remarks.—This case represents well one of those rare cases in which the practice of removal of the greater part of both the superior maxillary bones may be practised with advantage. In performing the operation I preferred adopting the primary incision as suggested by Heyfelder, as, from the size of the growth and the uncertainty of its deep attachments, I thought these incisions would afford the greatest possible amount of room for the removal of the tumour, and also in case of deeply seated hæmorrhage occurring during or after its removal these incisions would enable me to obtain the best view of the deep parts. After having fully exposed the tumour by reflecting the flaps upwards, instead of attempting to pass a chain saw through the spheno-maxillary fissure, which in this case would have been impossible to accomplish, I preferred to saw through the maxillary bones from the front, and then by inserting a chisel into the divided bone to separate the alveolar processes and lower part of the bones from the upper. By this means I avoided wounding the growth, which was very vascular, and I was enabled to remove it with its attachment entire. Had I persevered and thrust the chain saw through the spheno-maxillary tissue and sawn through the bone from behind forwards, it is evident that I must have divided the growth as well, and in all probability met with very considerable hæmorrhage. By adopting the method of dividing the bones, I was enabled to preserve the pterygoid processes of the sphenoid bone intact, which is of very great importance. Had the disease extended deeper than it did, by removing the lower portions of the bone by this method it would have been easy by means of

[1] Read before the Medical Society of London.

the gouge or gouge forceps to remove as much more as might have been necessary. Doubtless, this method of proceeding has been adopted by other surgeons, but I have been unable to find any case so operated on recorded. A point of interest about the growth is its character. The original growth when removed at Guy's Hospital is reported to be myeloid sarcoma. Again, when the patient presented herself at St. Thomas's Hospital the growth was described as a myeloid sarcoma. The appearance of the tumour now, however, has appeared to have undergone a change, for there are only a few myeloid cells to be seen, while the bulk of the tumour seems to be made up of a firm fibrous stroma interspersed with a large number of small round cells. Another interesting point is that when Mr. Lucas removed the growth in June, 1885, he did not remove any of the hard palate. Now, however, the whole of the hard palate is absorbed, having been destroyed by the tumour. There is no doubt the growth commenced in the periosteum of the hard palate, for Mr. Lucas is reported to have scraped the base, after removal of the growth with scissors, and from its point of origin the tumour grew upwards and right and left, absorbing the bony structures as it extended, at the same time pushing its way outwards into the cavities of the antra, and upwards between the ethmoidal spongy bone.

Upper Wimpole-street, W.

A FEW FACTS CONCERNING THE RECENT PREVALENCE OF WINTER DIARRHŒA.[1]

BY SHIRLEY F. MURPHY,

LECTURER ON HYGIENE AND PUBLIC HEALTH, ST. MARY'S HOSPITAL.

I HAVE thought that our Society might well have before it a few facts which I have been able to glean concerning the recent prevalence of diarrhœa during the winter months. The subject was first referred to in a paragraph in THE LANCET of Feb. 5th, which also contained the following week a letter from Mr. C. H. Taylor of the West London Hospital, stating that diarrhœa was prevalent in Fulham, Chiswick, and Hammersmith; and the *British Medical Journal* of the same date published a communication from Dr. Norman Kerr telling the same story for the neighbourhood of Regent's-park. Later, other correspondents bore witness to the existence of epidemic diarrhœa in St. James's, Bayswater, Marylebone, Clapham, Lewisham, Penge, Kingston-on-Thames, Kent, and even as far from London as Lancashire and Aberdeenshire. The reports of the symptoms from which the patients suffered fairly well agreed. In all cases there was diarrhœa, in the majority abdominal pain, vomiting, cramps in the limbs, great depression, and a symptom of particular interest — high temperature. In a few the fact was noted that the patients also suffered from hæmorrhage from the bowels. In many instances the sufferers were attacked in the night, and often in groups, suggesting community of cause. We may assume therefore, in the first instance, that the epidemic, wherever it manifested itself, was of the same nature, and that some of the symptoms to which it gave rise were those not usually met with in ordinary diarrhœa, and that, regarding it as diarrhœa, the disease occurred at an unusual period of the year. We are led, moreover, to conclude that, notwithstanding the area which its operations covered, it is in the highest degree probable that the cause in each locality was the same. And I may go further, and say that this cause was not related to any climatic condition; for, if we examine the dates of outbreaks in public institutions situated near to each other, and therefore subject to the same climatic conditions, we do not find that these dates exactly correspond; and, further, some institutions also in the neighbourhood of those which were invaded escaped altogether. The cause must, nevertheless, be one capable of operating over large extents of country.

My own opportunities for learning some particulars of this illness were practically limited to its behaviour in a special hospital in Central London, which I first visited for that purpose on Jan. 27th. I was informed by the senior house-surgeon, who had taken great interest in the matter, that half the inmates of the institution about two months before had been attacked suddenly with diarrhœa, the patients alone suffering and the staff altogether escaping. On Jan. 25th the incident repeated itself, nearly fifty persons on this occasion being attacked. The distribution of the disease in the hospital is of importance; for again, on the second occasion, the patients were, with trifling exceptions, the only sufferers. The patients are resident in wards situated on three floors; those on each floor taking their meals mostly together. On the first floor are beds for thirty women, on the second floor beds for forty men, and on the third floor twenty-six beds, twenty-one of which are occupied by men and the rest by children. Of the patients resident in the hospital at the time of my visit, I found that on the first floor there were attacked on Jan. 24th (Monday), in the morning one, in the evening three; on the 25th (Tuesday), in the morning two, in the evening six; on the 26th (Wednesday), in the morning one. On the second floor there were attacked on Jan. 24th (Monday), in the evening one; on the 25th (Tuesday), in the morning eighteen. On the third floor there were attacked, on Jan. 24th (Monday), in the evening five; on the 25th (Tuesday), in the morning six. Or, considering those on the different floors together—on Monday, Jan. 24th, ten were attacked; on Tuesday the 25th, thirty-two; and on Wednesday the 26th, one; the majority of the attacks occurring while the patients were in bed at some period of the night.

The most striking circumstance in the outbreak is the almost complete immunity enjoyed by the staff. Of twenty-two persons engaged either in attendance upon the sick or in domestic duties, but two suffered from diarrhœa, and these were nurses, both of whom were attacked in the early morning of Tuesday, Jan. 25th.

To enable the exact incidence of the disease upon the patients to be determined, and for the purposes of further inquiry, I ascertained the condition of health of those who had been discharged from the hospital for some time previously, and in this manner elicited information that no patient who left the hospital before Jan. 24th was attacked. On Thursday, Jan. 20th, three patients were discharged, and on Friday, the 21st, three; on Saturday, the 22nd, six: none of whom suffered. On Sunday, the 23rd, no patients were discharged; on Monday, the 24th, six patients were discharged, three of whom were attacked early the following morning at their own homes. Whatever cause, therefore, gave rise to diarrhœa probably came into operation after the patients left on Jan. 22nd—i.e., after midday dinner on that day. Of patients newly admitted into the hospital, three admitted on Jan. 20th were each attacked; of two admitted on the 21st, one was attacked; and of three admitted on the 22nd, two were attacked. None were admitted on Sunday, Jan. 23rd. Five were admitted on Jan. 24th, all of whom escaped. Two were admitted on Jan. 25th, both of whom escaped. The cause of the outbreak therefore probably ceased to be operative before the patients were admitted on Monday, Jan. 24th—i.e., the cause was operative only some time between midday on Saturday, Jan. 22nd, and midday on Monday, Jan. 24th.

It becomes important, therefore, to ascertain the effect of this cause upon the patients *who were in the hospital at this particular time*, changes by admissions and discharges having taken place before my visit. There were sixty patients in the hospital between Jan. 22nd (Saturday), midday, and Jan. 24th (Monday), midday, of whom forty-three were attacked with diarrhœa, either within the hospital or immediately after their return home, giving a percentage of 76·6. Of the staff I have already said there were twenty-two, of whom two were attacked, or 9 per cent. This difference is so great that I was compelled to regard the condition causing the diarrhœa as one with which the patients must be specially related, and this view was strengthened by the fact that the two affected members of the staff were nurses who may likely enough have come into accidental relation with this condition.

At this period I was not aware that the disease was prevalent in other parts of England, and I was led to examine the incidence of attack upon patients taking milk, water, and other articles of food. Of those who drank unboiled water at their meals there were thirty-three, of whom twenty-five were attacked, or 75·7 per cent., being practically identical with the general average. Of those who drank no water except that which they had in their tea, and which had therefore been boiled, there were twenty-six, of whom twenty-one were attacked, or 80·7 per cent. Drinking water

[1] Read at a meeting of the Society of Medical Officers of Health, May 20th, 1887.

or abstaining from water did not therefore affect the probabilities of attack. Again, forty-four patients drank uncooked milk instead of beer, and of these thirty-four were attacked, or 77·2 per cent., a proportion equal to the general average. Of fifteen patients who took no milk except in tea, thirteen were attacked, or 86·6 per cent. Drinking or abstaining from milk cannot therefore be said to have affected the probabilities of attack. Nevertheless, the large proportion of attacks among patients, and the immunity enjoyed by the staff, strongly indicated some article of food as responsible for the occurrence. The senior house-surgeon was good enough to prepare for me a complete list of all the articles of food consumed in the hospital. I may at once eliminate from further suspicion the following:—Milk, because the supply was common to staff and patients, because of the evidence already adduced, and also because the same farms supplied milk to another large hospital, which remained free from disease. Water, because it was consumed by staff and patients, and because of the evidence already adduced. The possibility that the local contamination of a cistern was responsible for the outbreak may be set aside by consideration of the fact that separate cisterns supplied the different floors. Tea and salt may be eliminated, because the supply was common to staff and patients. Meat and potatoes, because the supply was common to staff and patients. Beef-tea, because it was only consumed by a few patients. Beer, because those who did not drink beer were also attacked. Bread and sugar, because the same articles consumed by the patients were also supplied to the servants, none of whom were attacked. Rice, because no fresh supply had been received for a long time previously, and the children had been eating rice daily without injury. I may also refer to the fact that other institutions and other parts of the country were invaded, having different milk, water, and meat supplies.

There is but one article of food I am unable to exculpate, and to the possibility of this being the cause of a widespread outbreak I would desire to direct the attention of the Society. I refer to butter, which in the method of its distribution in the hospital in the first instance raises a presumption that it may have been concerned in producing this curious disease. Three qualities of butter were supplied to the institution—(*a*) that provided for the medical officers and matron, (*b*) that provided for the nurses and servants, and (*c*) that provided for the patients. The patients' butter is received on every weekday at 10 A.M., and is used for tea and supper the same day and for breakfast the following day, on Saturdays the supply being increased to last until breakfast on the following Monday morning. If we assume that the butter received for the patients on Saturday, Jan. 22nd, possessed purgative properties, there is ample explanation of the illness of all the patients who suffered from diarrhœa. That all were not attacked at the same time, and that some escaped, may be due to some unequal distribution of the active principle throughout the butter, or perhaps to some difference in the quantity consumed. There remain the attacks of two nurses, who, it may be mentioned, suffered less severely than the patients from this malady. I have no other explanation to offer on this point than that they must have eaten some portion of the bread-and-butter not required for the patients. Those who are intimate with hospital life will know that this is no unusual event. Thus far as to this particular hospital. The difficulty which stands in the way of the acceptance of this theory is the fact that other institutions—many persons not living in institutions, and other parts of the country have also shared in the prevalence of diarrhœa.

English butter is made upon the farm on which the milk is produced, and the few pounds which each farm is able to contribute could not be sufficiently widely distributed to give rise to an occurrence such as that we have under consideration. But the butter which I have been led to suspect was that provided for the patients, and low-priced butters come largely from abroad. In other countries butter is not always manufactured on the farms on which the milk is produced, but large numbers of farms send their milk to central depôts, where, I am told, the milk of hundreds of farms is mixed together, made into butter, and colouring matter added, which always gives to it a uniform colour and flavour. This is sent over in enormous quantities to the English middle-man, who distributes it to local vendors, from whom it reaches the consumers. In this manner any capacity which the milk from any farm might possess to cause diarrhœa would, if due to an organism, have the possibility of being multiplied by admixture of this milk with other milk, and thus its effects might be felt in many places. Or perhaps the method of treatment of the butter in some central depôt might be concerned in conferring upon it this power, or possibly by the development of some chemical poison it might have acquired this special property. The symptoms of the sufferers, indeed, remind us of the observations of Dr. Victor C. Vaughan of Michigan concerning the effects of a ptomaine he found in cream. It is, under any circumstance, conceivable that butter which possesses this property might be distributed through different channels over a large area of country, and thus induce diarrhœa in one district or institution at one time and in another at the same or at a different time.

I have not had the opportunity of extending my inquiries sufficiently to enable me to thoroughly sift the evidence that could be obtained outside the institution with which I was concerned. I therefore prefer to leave the subject where it is, but I may mention incidentally that one large hospital which also suffered heavily received its butter from the same source as that which came under my own observation, and that another suffering very partially required the patients to supply their own butter, thus giving opportunity for it to be procured from many sources, of which perhaps one only was identical with that under suspicion. This difference in the method of supply may perhaps account for the smallness of the number of persons affected in some institutions. I do not wish now to do more than urge—1st, that the nature of the epidemic of which we have recently had experience points to an article of food as the cause; 2nd, that the facts learnt at one institution, where they were carefully observed, point especially to butter; and, 3rd, that any objection to this theory, which is based on the method of distribution of butter made on English farms, falls to the ground when the distribution of foreign and of artificial butters is considered. In conclusion, I would desire very cordially to thank Mr. E. Treacher Collins, whose active assistance has enabled me to ascertain the facts upon which this story is based, and to whose accurate observation I am very greatly indebted.

DEATH FROM IMPACTION OF GALL-STONES.

BY A. GLOVER WILLIAMS, M.D., M.R.C.S.,
SURGEON TO THE BRIXTON DISPENSARY.

ON October 13th, 1886, I was called to see Mrs. B——. She was a woman of dark complexion, with rather an anxious expression, and was markedly jaundiced, the conjunctivæ being of a deep yellow. She was fairly well nourished. I was told that three months ago she was seized with pain below the right ribs, which gradually became intense; it was more or less paroxysmal in character, accompanied by violent sickness, and followed in a day or two by yellowness of the skin. A medical man was called in, who said she was suffering from the passage of gall-stones. She suffered from the pain and sickness at short intervals until three weeks or a month ago, when the pain left her; but the sickness increased, notwithstanding, until she could keep nothing down; the jaundice also deepened. Her friends told me that she had been somewhat addicted to drink. She was under my care from October 26th to November 12th, 1884, and was then suffering from symptoms of gall-stone colic—viz., acute pain in the right hypochondriac region, with sallowness of the conjunctivæ, which did not amount to jaundice; the urine contained some bile, and the fæces were pale—i.e., clay-coloured; the motions were searched for gall-stones, but none were found. In July, 1885, she again came under my notice with the same symptoms. There was no actual jaundice on this occasion, and no gall-stones were found in the fæces. In March, 1886, she had a similar attack, but on this occasion she was jaundiced; the pain then left her suddenly, but her recovery was gradual. She says that her father had some operation performed on his lip, but she does not know what for.

The patient's present condition (Oct. 13th, 1886) is as follows: She has lost all pain, but suffers from constant sickness. She retains nothing; even the medicine is returned. The vomit is of a dark-greenish colour, almost wholly fluid, and about the consistence of thin gruel. The bowels are

open, somewhat relaxed; motions greyish-white in colour. She is very restless, and gets but little sleep. The urine is very dark, and contains bile. The liver is felt below the ribs; the upper line of dulness is lower than natural (at seventh rib) owing to increased lung resonance, so that the liver dulness only measures vertically three inches in the nipple line. At the junction of the umbilical and right lumbar regions, and about three inches from the edge of the right ribs, a hard mass about the size of a large walnut is felt on deep pressure; it is somewhat tender and quite immovable. Ordered iced milk, milk and soda-water in small quantities with brandy, and a mixture containing bismuth, hydrocyanic acid, and opium.

Oct. 15th: Sickness somewhat less. Has kept a little down. Medicine has not been returned.—17th: Not so well; sickness is worse; has not been able to keep anything down. Ordered nutrient enemata of beef-tea, egg and brandy, three times a day.—19th: Sickness still continues; is very restless; cannot sleep at night. Ordered white of egg by mouth, as well as the enemata, also a pill containing half a grain of opium every four hours.—20th: No diminution in sickness. Ordered an effervescing draught, with hydrocyanic acid and opium.—21st: She is much worse, and in a semi-unconscious condition, from which she can be roused to a certain extent. No sickness since 3 A.M.; pulse frequent and very feeble. Ordered two drachms of brandy every hour. From this condition she never rallied, but, becoming more unconscious, died at 5 P.M.

Necropsy.—Body fairly well nourished; skin and conjunctivæ intensely jaundiced. On opening the abdomen, a good layer of fat was noticed in the abdominal wall. The liver was seen to project about an inch below the edge of the right ribs; it was somewhat larger than natural, and the increase was most marked in the left lobe. On section, the central zone was well marked, the outer being pale. The gall-bladder was small, and adherent to the under surface of the liver; its walls were much thickened. On opening it, it was found to contain about a tablespoonful of thick greenish fluid, and thirteen or fourteen gall-stones, varying in size from a small pea to that of a hazel-nut; most of the stones were marked by facets. The cystic duct was much dilated, and contained two gall-stones about the size of small hazel-nuts. The common bile-duct was much dilated, and was at least as large as a man's thumb. At the point of entrance into the duodenum three large gall-stones were impacted in a triangular fashion, two being in front and one behind; they completely blocked the opening into the duodenum, were of the size of large hazel-nuts, angular, and marked by facets; the remainder of the common duct contained three stones, rather smaller than these. The hepatic duct was dilated, and contained two stones, which were angular and marked by facets. The duct from the left lobe was much dilated, and contained one stone about the size of a large pea; the duct from the right lobe was not much larger than natural, and contained no stone. The spleen was congested and very friable. The kidneys were slightly puckered, and the capsules somewhat adherent. The glands in the lumbar region lying to the right of the bodies of the vertebræ, and behind the duodenum and head of the pancreas, were converted into a hard calcareous mass about the size of a walnut. There was no bile stain on the mucous membrane of the duodenum.

Remarks.—The rarity of death from impaction of gall-stones uncomplicated by other disease alone makes this case interesting, only two cases being quoted in Murchison's "Diseases of the Liver," and these do not occur in his own experience. The diagnosis was in some degree complicated, owing to the small tumour felt at the junction of the umbilical and right lumbar regions. This, which proved to be a calcareous mass of glands, suggested some malignant disease of the pylorus, duodenum, or head of pancreas; but the character of the pain, the interval between the patient's illnesses, and the freedom from symptoms, together with the fact that there was comparatively very little loss of flesh, pointed to gall-stones as the chief element in the case. Another point of interest was the cessation of pain for so long a period before death, without any improvement in her other symptoms. Then there was no enlargement of the gall-bladder, owing to the obstruction of the cystic duct—a point which usually helps the diagnosis. As to the immediate cause of death, it was no doubt due to cholæmia and the exhaustion consequent upon the continued sickness. Bile had evidently not entered the intestines for some time. In conclusion, could anything have been done in the way of an operation (cholecystotomy) in this case? In my opinion decidedly not, as the gall-bladder was small and firmly adherent to the under surface of the liver.

Brixton-hill, S.W.

GOITRE IN ANIMALS.

BY ALLEN THOMSON SLOAN, M.D. EDIN.

THE question of goitre among animals appears to have been little studied, and it is difficult to get any literature on the subject. For my present information I am indebted to the works of St. Lager and Baillarger, and also to the kindness of Principals Williams and Walley of the Veterinary Colleges, Edinburgh, whose opinions, however, are rather opposed to each other. According to St. Lager, the thyroid gland exists in all mammiferous animals, birds, and reptiles. It is wanting among many fish—such as the perch, mackerel, salmon, herring, turbot, and sole; but it exists in the carp, sturgeon, eel, and shark. In many mammals—as the camel, alpaca, nylghau, hartebeest, dog, warthog, porcupine, and kangaroo—the isthmus is wanting, and the two lateral lobes are quite disconnected; whilst in the female carnivora the isthmus is very small in relation to the size of the lateral lobes (Turner).

Naturalists have wrongly applied the term "goitre" to the enlargement of the throat seen in certain reptiles—such as the chameleon, iguanas, lizards, and some species of toads. Among these the skin of the neck hangs down in projecting folds. The term "goitre" has also been applied to the swollen necks found in certain birds—such as the pouter pigeon, the cormorant, the pelican, and some vultures, all of which have enlargement of the throat quite distinct from the thyroid gland. Aristotle, Pliny, Galens, and Ætius have remarked that pigs are subject to swellings of the glands of the neck. Galen expresses himself thus: "Graeci strumas appellant χοιράδες a porcis in quoram gutture adenosi quidam tumores reperiuntur." Paul D'Egine said that these referred to scrofulous tumours, but Pliny, in his Natural History, says positively that pigs are subject to goitre owing to the bad water they drink. Vegèce, in his "Treatise on the Veterinary Art," speaks of scrofulous tumours of the parotid, and goitres which are seen sometimes in mares. Goitre has been seen in dogs and pigs in many parts of Switzerland by various observers. It has been noticed in sheep and cattle in Switzerland, Wurtemburg, the valley of the Danube, in the Himalayas, in Siberia, in Brazil, and the United States. Rudolp and Rupp have seen hyænas goitrous. Gustave Ruddé has seen in Siberia, near the Chinese frontiers, antelopes with goitre. He thought at first they formed a new species, and called it "antelope gutturiosa"; but as he only saw them in districts where goitre also affected man, and not in those where it was absent, he came to the conclusion that it was pathological.

In Russia, Central America, the United States, and in the Canton of Geneva horses have been seen goitrous. M. Baillarger, in a paper read before the French Academy of Sciences,[1] gives the result of his researches undertaken in the departments of the Savoy and of the Isère. In many localities in Maurienne, St. Jean, and St. Michael, he found among mules hypertrophy of the thyroid gland in much greater proportion than among man. In a stable of Modane, out of twenty mules nineteen had goitre. In the department of Isère, out of thirty mules employed in the mining works no less than twenty-three had goitre. In the normal state the thyroid gland of mules is about the size of a chestnut, but in these cases it had attained the size of a hen's or turkey's egg. As a rule, the goitres were very movable and caused no pain; but in three cases they compressed the trachea, and produced breathlessness during strong muscular effort, causing the animals to kick. The hypertrophy affected both lobes of the gland, or one only, and in the latter case more often the left. At Allevard, Dr. Niepce confirmed these observations. The existence among mules of a special tendency to hypertrophy of the thyroid seems to be placed beyond doubt, and does not exist to the same degree among other domestic animals. Horses are often attacked with goitre, but the proportion is much less. In certain conditions, however,

[1] Sur le Goitre des Animaux. Compte Rendu, Académie des Sciences, 1862.

the frequency is very great. At St. Jean de Maurienne four out of seven horses of the gendarmes were affected with goitre after a residence of less than two years in the place. This case was all the more remarkable because these horses were well fed, carefully groomed, and kept in a well-lighted and well-ventilated stable. After horses, dogs are most liable to hypertrophy of the thyroid. Finally, one finds it in cats, cows, sheep, goats, and pigs. It is impossible not to attach goitre in animals to the same endemic causes which produce it in man. Among a great number of these animals in Swiss localities, it was rare to find a thyroid of normal size. Professors of veterinary medicine have considered goitre excessively rare among animals. I believe this rarity only exists in healthy localities, but it is otherwise where goitre and cretinism are endemic. It is difficult to account for its special prevalence among mules, but it is interesting to note its occurrence among sterile animals, when sterility is one of the characters of cretinism. In regard to cretinism few observations have been made. Raynard has seen in goitrous dogs a stupidity comparable to idiocy, and Rougieux has observed the same degradation in dogs and horses. St. Lager asked several persons who possessed goitrous animals in Savoy, Switzerland, and Piedmont, and all have assured him that the hair becomes rough and coarse, the voice hoarse, and the memory obliterated. They become lazy, and finally reach a state of torpor which it is quite justifiable to compare to cretinism. Most interesting are the above observations when viewed in the light of the recent experiments of Mr. Victor Horsley, who, in showing the relative value of the thyroid gland in different animals, demonstrated how its removal produced sooner or later grave nervous effects in the donkey, pig, cat, and dog, according to the functional importance of the gland in each.[2] Alibert says that sheep and calves not unfrequently die from the effects of goitre.

Observers in India confirm the fact that goitre affects animals in those countries where it is endemic. Thus Mr. Greenhow[3] says: "At Hissaurpore, a village on the Surjoo, about twelve miles distant from Seerora, dogs and other animals are affected with goitre. Mr. Bramley[4] noticed the same curious circumstance in Nepaul, for he mentions, "on one occasion a goat brought forth a kid with a goitre as large as its head." Puppies of a month old, bred from English dogs, are very frequently affected by it, as are also lambs." In 1824 he observed this tumour in camels at Purneah, and crows are likewise said to be affected with it at the same place. Dr. Campbell[5] has seen horses and lambs goitrous on the borders of Gunduk, and also many animals in Nepaul, among others buffaloes. Dr. MacClelland reports its occurrence among dogs and cats in the Himalayas. While Mr. Brett, in his "Surgery of India," says: "Bronchocele is congenital in animals in Nepaul; almost the moment the animal is born it expires"—a fact noted also by Dr. Campbell.

Principal Walley of the Dick Veterinary College, Edinburgh, is of opinion that goitre in animals is an extremely rare disease, and that the cases reported have been generally mistaken for struma. In horses especially it seldom occurs, and these also are very free from struma. The only typical case of goitre he has seen was in a horse belonging to the late Emperor Napoleon, which was bought by Mr. Pender, M.P. for Wick. Owing to the enlarged thyroid the animal was afflicted with "roaring," so its removal was attempted. During the operation, however, the horse in its struggles broke its back, and had to be killed. Mr. Walley thinks that true cases of goitre do occur among pigs, and these of all domestic animals are most commonly affected with scrofula. He considers it rare in dogs and cattle. I have never seen a case of goitre in an animal, but it is interesting to note that in Cumberland, where it exists as endemic disease among man, that cattle are notoriously subject to scrofulous enlargements of the glands of the worst type.

Principal Williams, of the New Veterinary College, Edinburgh, informs me that goitre is prevalent in horses, sheep, and cattle in Derbyshire and some parts of Wales, where magnesian limestone prevails, but that he has seen it pretty common in places quite independent of this. In his practice round about Edinburgh he finds it occasionally occurring in young foals, which fact he associates with bad ventilation. It is sometimes congenital; in one case a mare of his own gave birth to a foal that was goitrous. It is more rare among dogs, though it sometimes affects young ones, disappearing as they grow older and under treatment. About twelve years ago an epidemic of it affected Lord Polwarth's lambs at Mertoun, Berkshire. In his "Principles and Practice of Veterinary Surgery," he writes thus: "Cysts in the thyroid body constitute bronchocele; they are said to be caused by the water which the animals drink, and that if the water be changed they will disappear. But I have some doubt as to the truth of the statement that bronchocele is solely caused by the presence of magnesian lime in the water, as I have seen well-marked cases in young foals and in large flocks of lambs where this could not possibly be the cause. Doubtless, it is found most abundantly on the magnesian limestone formations; but it cannot be denied that low situations, or a damp atmosphere upon elevated situations, will act as causes of bronchocele."

Both these professors have several times seen the thyroid completely destroyed by inflammation and suppuration, and the animal remain afterwards perfectly well. Neither of them have had any experience in regard to removal of the gland, as cases necessitating this operation are hardly ever met with.

Artificial production of goitre in animals.—Various experiments have been made upon animals with the view of artificially producing goitre, but without any trustworthy results. According to St. Lager, both he and Baillarger administered preparations containing carbonate of lime and magnesia to dogs for a period of six months, without any enlargement of the thyroid gland ensuing. The same writer gave dogs and guinea-pigs sulphuret and sulphate of iron and other metallic salts for some months, but with negative results. One day, however, in his own house, he caught a mouse, and to his astonishment it had a goitre, which he thought might have been caused by its eating cinders of a certain coal which contained sulphuret of iron. Accordingly he experimented on a dozen mice, giving them sulphuret and sulphate of iron, baryta, fluorine, and natural bitumen. At the end of three months three only had enlargement of the thyroid perceptible both to sight and touch. These three had added to their food sulphuret and sulphate of iron. Many doctors of Lyons are reported to have seen these animals, but the experiments can hardly be said to be trustworthy or at all convincing. The salts of iron have been long administered in medicine, and for the last few years not only the sulphate but the sulphide of iron have frequently, and for lengthened periods, been given in the treatment of anæmia, with none other than a beneficial effect.

Edinburgh.

[2] Brown Lectures. THE LANCET, Dec. 18th, 1886.
[3] Indian Annals of Medical Science, vol. xii.
[4] Calcutta Medical Trans., 1833.
[5] Ibid, 1835.

GENERALISATIONS REGARDING THE

PATHOLOGY OF ABNORMAL GROWTHS IN MAN AND ANIMALS, AND THEIR EXPLANATION ON THE EVOLUTION THEORY.

By ALBERT GRESSWELL, B.M., B.A. OXON., M.R.C.S.

No branch of comparative pathology has received more careful study than that which deals with the mode of growth and variations in the histological structure of the various tumours, malignant and benign. In these short notes I propose to restrict myself to a cursory survey of the etiology of abnormal growths, not criticising views which are generally held, and not dealing with the actual or immediate cause, but suggesting a general basis which may be regarded as the ultimate cause to which such abnormal manifestations may probably be traced. In order to clearly explain my meaning and to illustrate it more fully, some remarks of my brothers, Dr. Astley and Professor George Gresswell, may, in the first place, be mentioned.

It may be said that all new formations, as instances of which the enchondromata may be taken, are characterised by the preponderance of cellular elements. These are, of course, variously modified. They may fibrillate, and, further, may be at length calcified; but very rarely, if ever, do they develop into the highest forms of tissue, the muscular and the nervous (Buhl). This latter fact is only to be expected, since the tissues of most important specialisation must necessarily be those which are produced, so to speak, with greatest difficulty. It is a familiar fact that all the tissues of organisms are to be regarded as having their origin in cells. Similarly, too, new formations in man and

animals are also traceable to the proliferation of cells. Necessarily, the cells become more or less modified so as to become almost, if not quite, indistinguishable from their parent cells. New formations of all varieties are, I hold, to be looked upon as reversionary in nature, and are clearly traceable to a remote ancestral condition, when the primary importance of cells as units not greatly modified, distinct and uncombined into aggregates or but imperfectly and incompletely combined, was far greater in the respect of individual power than it can be, where each cell is dependent on the activities of other units, with which it is combined as in the higher forms of life.

As illustrating my theory, let me briefly consider some points regarding the enchondromata. Enchondroma myxomatodes presents structural features such as are met with in the notochord of the vertebrate animals. The cells of some enchondromata are stellate, their processes uniting into a network. A like condition of cellular structure is met with in the Selachii, which may be regarded as the root forms of the vertebrates. Again, enchondromata are most common in the limbs, and especially in their distal extremities; and, since the original condition of the vertebrate limb is represented in the selachii as a multitude of cartilaginous rods arranged in a definite manner (the rods increasing in number towards the distal extremity of the pro-pterygium, the meso-pterygium, and the meta-pterygium), we are perhaps justified in looking upon these facts as showing to us homologous relationship. Corroboration is seen in the frequency with which cartilaginous bodies develop in connexion with certain joints of the limbs in man and animals. These bodies are either single or multiple, and they are of all sizes up to that of a small apple. Cruveilhier figures a number of rounded cartilaginous bodies in the elbow joint. Mr. Smith removed over 200 loose rounded cartilages from the knee joint of a man at St. Bartholomew's Hospital. He also operated on a woman, aged twenty-eight, who had for six years presented a tumour in the upper third of the right arm, immediately beneath the skin. The tumour was pyriform, tapering towards the axilla. It was three inches and a half long, and two inches in diameter at its thickest part. It was encapsuled, and within the capsule there were found one large mass of cartilage and twelve or more detached lobulated bits of cartilage. There were also similar detached nodules of cartilages in the axilla. The limbs, in fact, of the higher animals may have therefore dormant germs of the ancestral rods of cartilage; indeed, cartilage cells have been found in the synovial tufts of some joints. From such centres some of the above-mentioned cartilages had apparently developed. Supernumerary fingers have been referred to the multifid condition of the rays of the selachian fin. New formations of capillary vessels are generally congenital, and they are much commoner in the skin of the head and neck than elsewhere. These facts might suggest the possibility that they bear homologous relations to the vessels which develop about the epiblastic involutions lining the visceral arches of the lower vertebrata. Dr. D. A. Gresswell recently saw a nævus, the distribution of which seemed to afford some corroboration for such a speculation concerning the homology of nævi. It extended in a snake-like form down the right side of the neck; it was distinctly raised, and it passed with a tapering extremity into the external auditory meatus, down which it extended for a considerable distance.

It will be seen that the view which Dr. D. Astley Gresswell pointed out, and which we now wish to lay stress upon, is that one of the primary properties of cellular organisms was that of multiplying by processes of fission and gemmation. This characteristic, originally possessed by independent units, is still, in greater or less degree, a feature of those units which, when combined in various ways, make up the tissues and organs of higher forms of life. At times, and under special circumstances, which, in the present state of our knowledge, in many instances can only be roughly traced, this ancestral tendency of the cells to divide and multiply on their own account shows itself once more with something of its old vigour, and then new formations of various kinds result. When the bloodvessels are invaded by pathogenic micro-organisms, may it not be that, as previously pointed out, a kind of warfare, so to speak, goes on between the blood cells and the vegetal germs, and that when the latter gain the victory the man or the animal dies: whereas in cases where the blood-cells possess the power of strong resistance the sufferer also withstands the deadly effects of the foe? In some instances, then, the fertility of cells in the way of reproduction would be highly serviceable to the man or animal, while in others such power of multiplication is manifestly most destructive. Is it not a great question if we should not, in our investigations of disease, search most diligently into all those conditions which would enable us both to control and to facilitate the growth and multiplication of cells?

Louth, Lincolnshire.

CASE OF

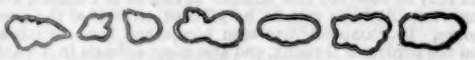
OSTEOPHYTES OF THE ARACHNOID.

BY F. H. M. BURTON, M.S. DURH., M.R.C.S.,
SURGEON, ARMY MEDICAL STAFF.

ON Nov. 28th, 1886, W. R——, a private in the 1st Battalion of the Royal Welsh Fusiliers, aged twenty-seven, who had served for a period of six years and three months in India, was detained in the Bhamo Field Hospital, suffering from ague. During his service in Burmah he had been twice in hospital for simple continued fever, and in May was invalided to Darjeeling from Mandalay, returning to duty in Bhamo early in November.

On admission, the patient was treated with quinine and a saline diaphoretic. He remained in bed during the day, and at 6.30 P.M. took some beef-tea. At about 9.30 P.M. a comrade's attention was attracted by his loud breathing and attempts to vomit. When I saw him he was lying on his back. On speaking to him he appeared to follow me with his eyes, but was otherwise unconscious. His pupils acted to light, and the conjunctivæ were sensitive; the teeth were tightly clenched, the right forearm was flexed at the elbow, and the fingers flexed on the hand, the right arm, forearm, and hand all being in a state of tonic rigidity, and the left arm and both legs in a state of flaccidity; occasionally both arms were jerked up in a spasmodic manner. Temperature 101·4°; pulse regular and good; breathing slightly stertorous; skin perspiring profusely. He had vomited a little bilious fluid.

On the morning of Nov. 30th, at 7.15 A.M., when I again visited the patient, he was suffering from clonic convulsions



Drawing exact size of osteomata.

of the muscles of the head, neck, trunk, and arms; the right leg was affected at intervals. Temperature 101·6°; skin perspiring profusely; quite unconscious. The clonic convulsions lasted considerably over two hours, and became very violent, the head being drawn to the right; and once the man uttered a shrill cry when the convulsions were most violent. As nothing could be given by the mouth, an enema of bromide of potassium was administered. At 11.30 A.M. the convulsions had ceased, and the patient lay passive in bed. Temperature 107·4°; pupils contracted to the size of a pin's head and fixed; breathing stertorous; pulse irregular and rapid. The temperature afterwards fell to 106·6°, there was loud stertorous breathing, the pulsation gradually ceased, the pupils became dilated, seminal emission occurred, and death ensued at 2.15 P.M. The patient had been altogether fifty-three hours and thirty-five minutes under observation.

Necropsy.—General aspect of body: A well-nourished man, but decided malarial cachexia. Cadaveric rigidity well marked in lower extremities, passing off in the upper part of the body. Brain and membranes: On removing the skull-cap, some half-dozen small osteomata, from the size of a pea downwards, were found symmetrically arranged on either side of the groove for the superior longitudinal sinus, and growing as excrescences from the inner surface of the frontal bone, composed of compact bone (see accompanying drawings); owing to the close adhesions in this situation the dura mater was torn in taking off the skull-cap. After opening the superior longitudinal sinus from the cristi galli of the ethmoid to the torula Herophili, the falx cerebri were detached from the cristi galli, and the dura mater and the parietal layer of the arachnoid stripped off from before backwards. Immediately behind the fissure of Rolando of the left hemisphere, and over the

upper part of the ascending parietal convolution, the visceral and parietal layers of the arachnoid were strongly adherent; there was a small patch of freshly effused lymph on the pia mater, and flat osteophyte (made up of two pieces closely bound together side by side) of the size of the thumb-nail, one-seventh of an inch thick, growing from the arachnoid and pressing upon the brain, its under surface being very rough and having several spiculæ. An inch and a half in front of this growth was another three-quarters of an inch long, one-tenth of an inch thick, and one-fifth of an inch broad, with sharp needle-like extremities, curved downwards; this was situated at right angles to the falx cerebri. Between the two growths the membranes were much thickened and there were signs of old inflammation. A similar set of growths (three in number), in the same position as the first one described, were found growing in the arachnoid over the right hemisphere, but extending over about twice the surface occupied by those on the left hemisphere, and having several very sharp and needle-like spiculæ, all curved down on to the pia mater. The visceral and parietal layers of the arachnoid were adherent in the situation of the growths, as on the left side, but there was no sign of recent or active inflammation on this side of the brain. The upper surface of the dura mater was normal. There was no fluid in the subarachnoid space or ventricles of the brain, and no other signs of inflammation of the membranes or of the brain. The superficial veins of the right side of the brain were somewhat congested, and the right lateral, superior and inferior petrosal sinuses were full of dark tarry blood. Thoracic cavity: The right lung was firmly bound everywhere to the chest walls by old adhesions. There were some old tubercular deposit in the upper part of the pleura. The lung itself was œdematous, but otherwise healthy. The left lung was œdematous, and some old tubercular deposit existed in the upper part of the pleura; otherwise healthy. Heart normal. Abdominal cavity: Gall-bladder full of thick reddish bile. Spleen enlarged and soft. Pancreas normal. The stomach contained some ounces of thick bile, and the mucous membrane was covered with thick, stringy, sticky mucus. Duodenum full of thick bile. Jejunum normal. The ileum contained much bilious fæcal matter. Colon and rectum normal. Kidneys normal.

Remarks.—The growth of osteophytes from the arachnoid is a sufficiently rare pathological condition to justify the publication of the above case. There was no history of syphilis; there were no symptoms by which cerebral disease could be diagnosed till the fatal attack, when the symptoms of pressure on, and irritation of, the cortex of the left hemisphere of the brain were well marked. In my opinion the fever suffered from was malarial, and merely caused an exacerbation of the chronic disease, and determined the fatal irritation and inflammation.

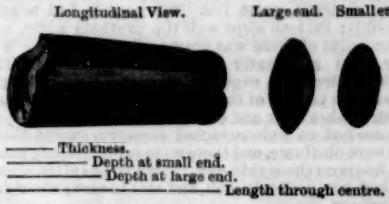
Bhamo, Burmah.

FOREIGN BODY IN THE AIR PASSAGES.

By CHARLES BOYCE, M.B., C.M. Edin.

THE following case is interesting as showing the length of time which a foreign body of the size shown by the accompanying diagrams may remain in the air passages without producing any untoward symptoms.

On October 20th last P. C ——, aged twenty, whilst driving home on a very dark night through a narrow lane smoking a briar pipe with a vulcanite mouthpiece was thrown out of his dogcart and rendered insensible, the pipe he was smoking being lost. For some time he lay insensible, and became cold and wet from the restoratives used by the surgeon who saw him at the time. When he recovered consciousness he was carried home and seen on the following day by my assistant, Mr. Macartney, and myself. His condition was as follows: There was considerable ecchymosis of the face and eyes, slight nasal catarrh, but no difficulty of breathing or impairment of expansion, resonance, or respiratory sounds, vesicular breathing being apparently equal over both lungs at repeated examinations. Examination of his throat showed nothing beyond relaxation of the fauces and elongation of the uvula. No laryngoscopic examination was made. There was no cough or shortness of breath; no pain or uneasiness, except on lying down in bed at night, when the breathing became whistling. This was the reason of my careful examination of the lungs, as I feared the development of some inflammatory trouble. As no improvement occurred in his condition, I advised him to go to Brighton for a change of air, cautioning him against going out at night or exposing himself to cold. When he had been some time there, one morning (Dec. 13th), whilst eating his breakfast, he swallowed a small fishbone, which caused a violent fit of coughing, during which he brought up part of the vulcanite mouthpiece of the pipe he was smoking at the time of the accident, the shape and exact size of which are figured in the dia-



grams. At the time of the convulsive cough a deep-seated pain at the sternal end of the right clavicle was experienced.

Remarks.—The most notable feature in this case was the absence of any serious symptoms; in fact, it was only whilst in the recumbent posture that any symptoms occurred pointing to the presence of a foreign body, and as the patient was quite unaware of what had happened to the mouthpiece of his pipe, the real condition was never suspected. I should be inclined to say that the foreign body lay crosswise in the trachea at its bifurcation, and that whenever he assumed the horizontal posture its position became slightly altered, so as to project more or less into the bronchi, causing the whistling breathing, and the pain at the right sterno-clavicular articulation which was felt at the time of its expulsion. Had it been in one of the bronchi, we should have expected far more serious symptoms from the size of the body, and the dyspnœa which was observed only on lying down would have been difficult to explain. The termination of the case was most fortunate for the patient, especially when we consider the size of the body expelled. Mr. Durham in Holmes' "System of Surgery" (3rd edition) gives the results of a number of cases of foreign bodies in the air passages, from which it appears that of those in which no operation was performed death resulted in about 40·94 per cent.

Maidstone.

OVARIAN TUMOUR FOLLOWING INJURY; OPERATION; RECOVERY.

By JAMES WILSON, M.D., F.R.C.S. Eng.

MISS L——, aged eighteen, gives the following history:—About three years ago she struck her left side against a door, felt faint, had severe and continuous pain for two years, and thought she could feel a lump at the seat of injury. About a year ago the swelling began to increase, with complete cessation of the pain. Bowels costive; menstruation irregular, periods varying from a fortnight to two months. She consulted a medical man, who treated her for indigestion and flatulence.

On examination the chest was found to be normal. Urine free from albumen. Slight œdema of feet and ankles. Family history of phthisis. Temperature normal; pulse 130 per minute. On examining the abdomen, it was found exceedingly enlarged, with distinct fulness on left side. On percussion, dulness extended from the pubes to the sternum. Resonance in flanks, but more marked on right side. Distinct wave of fluctuation in every direction. Per vaginam the uterus was normal, save that it was markedly depressed.

On March 3rd, under the A.C.E. mixture, ovariotomy was performed. The abdominal walls were thin, tense, and free from adipose tissue; hæmorrhage slight. On opening the abdomen the tumour was found to be non-adherent. It was tapped and about two gallons of fluid withdrawn, when a dense fibro-muscular tumour, weighing about 2½ lb., was removed with the cyst wall. The pedicle was tied with China silk. The other ovary was found enlarged and cystic, and was also removed. The abdomen was cleared of a little ascetic fluid with sponges. The abdominal wound was

stitched with silver wire, and iodoform powdered over the surface. No spray was used. The patient recovered from the anæsthetic in an hour after the operation. There was slight sickness, but no pain. Ice was given. Temperature 100° in the evening.

March 4th.—The patient has slight headache and pain. About two drachms of blood passed by Fallopian tubes. Natural sleep. The only unpleasant symptom was suppression of urine. Temperature 100·5°. Ordered milk, ice, and champagne in teaspoonful doses.—5th: Patient comfortable; temperature 99·2°, pulse 100. The napkin had a urinary odour.—6th: Patient slept well the previous night, and at 7 A.M. one pint of urine was drawn off by catheter. Wound healthy, and apparently healed. Temperature 99·2°.—7th: The patient has slight bladder irritation, and passes urine without the aid of the catheter. Temperature normal, pulse 98. Takes milk and champagne freely.

The case had an uninterrupted recovery, except that the bowels were obstinate, and there were severe griping pains for several hours on the eighth day. Three weeks after operation the patient was perfectly well, and able to move about freely.

Haverfordwest.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

THREE CASES OF SARCOMA COMMENCING IN CONNEXION WITH THE SCAPULA, THE THIGH, AND WITH THE FEMUR; RESULT.

(Under the care of Mr. J. W. HULKE.)

WHILST cancer (anatomically defined) is not often seen before the end of the third decade of life, sarcoma does not observe such restrictions, but attacks alike the young and persons in advanced age. But this statement is subject to the limitation that the melanotic variety rarely occurs before middle life, and glioma (regarded also as a variety of sarcoma) in its most frequent seat—the retina—has a strong predilection for infancy and early childhood. Youth and early adult life furnish a large proportion of cases of sarcoma originating in connexion with the motor apparatus, and under the circumstances incidental to these life-phases the disease usually runs a rapid course and manifests great malignancy. In the first and second of the following cases exarticulation at the shoulder and hip joints, ensuring a more complete removal of the tumour, would have offered a prospect of longer immunity from recurrence; but in neither instance would the patient accept this measure. The occurrence of secondary tumours within the skull, noticed in the third case, in which the primary tumour was in the thigh, is well illustrated by two preparations in the Middlesex Hospital museum taken at an interval of a couple of years from the same patient, a young adult: one a persistent sarcoma of the tibia, for which the leg was amputated; the other preparation a part of the brain, with five sarcomatous knots in the pia mater.

CASE 1. *Sarcoma originating in connexion with the structures attached to the coracoid process of the scapula; excision; recurrence; a second operation; some months later, death.*—In July, 1885, a milliner aged twenty-four, an anæmic blonde with flushed cheeks, was admitted for a swelling lying below the outer third of the left collar bone. It had a roughly hemispherical outline; its consistence was firm, yet elastic; it was evidently beneath the pectoralis major muscle: it was not attached to the clavicle or to the humerus; it moved with the scapula, with the coracoid process of which it appeared to be closely connected. No differences in respect of force, volume, and time were noticeable in the wrist pulses. No loss of muscular power and no impairment of sensibility of surface were observable in the limb. She complained of a dull aching pain in and about the swelling. The patient, a native of a northern county, said that she had been in London about a year, in the course of which her health, good before, had failed; she had become delicate, liable to faint, subject to palpitation and nervousness, and for the last three months had not menstruated. Nearly at the same time when her courses stopped, whilst washing before a mirror, she first noticed the swelling. A few days later she showed it to a doctor, who, regarding it as glandular, directed her to paint it with iodine. This had not, however, any curative effect; the swelling continued to enlarge, and then, pain supervening, she was advised to enter the hospital. The swelling was manifestly not of an inflammatory nature. There were not any grounds for considering it gummatous. Its rapid growth, its elasticity, its connexion apparently with bone, together with the woman's age, concurred in suggesting sarcoma. On July 20th the tumour was exposed by an incision following the interval between the pectoralis major and deltoid muscles. When the borders of these were retracted, it became apparent that whilst a small part of the tumour cropped out above the upper border of the pectoralis minor muscle, the chief mass of it was covered by this muscle. The latter was therefore divided; the axillary vessels, which were found displaced inwards by the mass, were drawn aside, and the deep connexions of the mass, which were found to be, as had been suspected previously, with the fibrous structures, attached to the coracoid process, being next divided, the removal of the mass was accomplished. The patient quickly recovered, and on Aug. 11th was able to be sent to a convalescent home in Sussex. When next seen, on Nov. 16th following, she complained of a slight uneasiness about the upper end of the scar, but nothing palpable was discoverable there. On Feb. 22nd, 1886, she returned, complaining then of severe pain in the shoulder and down the back and the inner side of the arm. A mass of some size could now be felt beneath the scar, but not implicating it, lying deeply beneath the axillary vessels, which it displaced inwards. The left radial pulse was weaker than the right. Two days later (Feb. 24th) the tumour was laid bare by an incision following the inner border of the scar. Its principal mass was found wedged in between the chest wall, the neck of the humerus, and the scapula. The axillary vessels and the brachial plexus ran through a groove in its anterior surface; the circumflex nerve pierced its substance. During the extrication of the axillary vessels and the nerve cords, a thin fascial capsule which enclosed the tumour was ruptured, which rendered the clean and entire removal of it less certain than it might otherwise have been. By March 15th the large wound had cicatrised, she left her bed, and by the 22nd appeared convalescent. She did not, however, recover strength, was low spirited, and she often complained of pain about the shoulder. On March 30th some hæmorrhage was detected in the neighbourhood of the coracoid process. She went for a few days into the country, and on her return on the 22nd of April a recurrence of the sarcoma was unmistakably present. A large ill-defined mass projected forwards the pectoralis major muscle, filled the armpit, extending thence upon the dorsal aspect of the scapula, and upon the back of the upper arm. She had much severe pain in the arm and in the shoulder, and she complained of some shortness of breath. The left side of the chest was now found less resonant and the respiratory sounds feebler than on the right side—changes which Dr. Cayley, who made this examination, regarded as suggestive of implications of lung by the new growth. This visceral implication placed the case beyond further surgical aid; she therefore returned home, where she lingered until the end of February of this year, death occurring about twenty-eight months after the first recognition of the swelling. Mr. R. Williams, the hospital pathologist, reported that the primary tumour and the recurrent mass both exhibited the fine structures characteristic of sarcoma.

CASE 2. *Sarcoma in the upper third of the thigh; excision; death from chest implication some months later.*—A bookseller's assistant, aged twenty-four years, was admitted into the hospital on Jan. 1st, 1884, with a swelling in the upper part of the front of the thigh, reaching very near to the groin, evidently involving the adductor muscles, and displacing outwards the superficial femoral vessels. Its figure was lobulated; its outline seemed definite. It was not fixed to the femur. He had been very active, and much addicted to football playing. For about eighteen months he had had pain in the thigh, which had been attributed to a sprain.

One doctor had told him it was due to muscular rheumatism, and another had pronounced it to be sciatica. About thirteen months after the first occurrence of pain the swelling appeared. Its increase had been rapid. The diagnosis was sarcoma. On May 7th the tumour was exposed by an incision nine inches long down the front of the thigh. The superficial femoral vessels were first disengaged; they ran in a groove in the outer aspect of the mass, and the separation of the vein was rendered difficult owing to the close adhesion of the paravenous connective tissue to the new growth. The saphena vein, the upper end of which near its termination was expanded into a large sinus, and also closely adherent to the tumour, was clamped with two pairs of pressure forceps and the intermediate adherent part excised. In the dissection required to liberate the deep aspect of the mass, it became evident that this was wedged in between the superficial and the deep femoral vessels. The tumour appeared to have begun in the adductor longus muscle. After its removal the deep femoral artery was seen exposed in nearly its entire course. The extensive and very irregular wound was washed out with a chloride of zinc solution (twenty grains to the ounce); two long and wide drainage tubes were inserted, and the edges brought together with silk sutures. Iodoform was freely applied. A compressive pad of boric-acid charpie with an outer gauze completed the dressing. All movement of the thigh was prevented by a Liston's long splint. The subsequent course was marked by absence of fever. By June 19th the large wound had quite closed, and a week later he left the hospital. The pathologist, Mr. R. Williams, reported the tumour to present the structure of sarcoma. The patient died at home in the following autumn of a chest affection, which the doctor in attendance said was due to the occurrence of tumours in the lungs.

CASE 3. *Sarcoma of the upper part of the thigh spreading into the pelvis; secondary tumours on and in the skull and orbit and in the lungs.*—On Aug. 26th, 1885, a clerk, aged twenty-five years, was admitted on account of an affection of the right thigh. The upper third of the thigh was very obviously swollen; its girth exceeded that of the left thigh by three inches. The swelling was caused by a deeply situated mass which implicated the upper part of the thigh bone. Below, it subsided so gradually that its limit in this direction could not be precisely defined. Above, its boundary was irregular. At the inner side of the thigh in the adductor region the mass appeared to be connected with the body and the symphysis of the os pubis, external to which it dipped beneath Poupart's ligament into the iliac fossa, forming there a rounded knob. Yet more externally it passed below the anterior superior iliac spine into the buttock, involving the gluteal muscles and concealing the great trochanter. Behind this last-named process was an old scar, as of a former abscess. The thigh was kept flexed on the trunk at about 80°. Flexion could be carried much further without discomfort, but extension gave pain and it caused rotation of the pelvis. The patient stated that in childhood he had been an in-patient under the care of the late Mr. C. De Morgan for hip disease; that he had recovered, retaining a useful limb, having fair mobility of the thigh; and that he had remained well until about eighteen months previously, when he began to suffer severe paroxysmal pain in the thigh, which he had himself attributed to a fall occurring some six months before. For some weeks he was treated for sciatica, without relief. The characters of the swelling, together with its history, were thought to indicate sarcoma, probably periosteal, originating in the femur. The extension of the new growth into the pelvis forbade exarticulation at the hip joint.

Indisposed to regard his condition as being beyond the aid of surgical operation, he left the hospital on Oct. 9th. One week later he was readmitted, being then much weaker and greatly worn by the increasing intensity of the pain in the swelling. This latter also had become larger. Three days later (Oct. 19th), on waking in the morning, he found the sight of the right eye imperfect, and his eyeball appeared to be very slightly more prominent than the left. A few days after this proptosis was unmistakably present. He lingered until Dec. 15th.

At the examination of the body, made on the following day, Mr. R. Williams found a large sarcomatous tumour embracing the upper part of the femur. It displaced but did not otherwise implicate the large femoral vessels. It involved the brim of the pelvis, and secondary masses were present upon the front of the lumbar part of the vertebral column. A single nodule of sarcoma was found in the base of each lung. A thin diffuse layer of sarcoma existed beneath the scalp over the apex of the lambdoidal suture, and two masses were present within the skull—one beneath that just mentioned, the other anterior to it in relation to the coronal suture. These intra-cranial masses apparently arose in the cerebral membranes; there was not any gross perforation of the bones of the vault of the skull, and by the unaided eye no continuity between the extra- and the intra-cranial masses was discernible. A nodule of sarcoma of the size of a walnut was discovered in the middle fossa of the skull, from which it passed into the orbit surrounding the optic nerve, and displacing forwards the eyeball.

NORWOOD COTTAGE HOSPITAL.

MULTILOCULAR OVARIAN TUMOUR, WITH UMBILICAL HERNIA, COMPLICATED WITH STRONG PELVIC ADHESION; RECOVERY.

(Under the care of Dr. JOHN H. GALTON.)

E. S——, aged fifty-four, was admitted on Nov. 29th, 1886. She had been married for twenty-five years; no children or pregnancy. No family history of tumours. Eight years ago she first noticed a swelling in the middle of the abdomen (umbilical hernia). Six months ago general swelling of the abdomen was first perceived. She has now a large ventral hernia just above the umbilicus, which is included in its walls. It measures fifty-two inches and a half round the hernial protrusion, and forty-nine inches and a half above it. Dulness and distinct fluctuation are present all over the abdomen, except in the right hypochondriac and umbilical regions, where it is resonant. On internal examination, there is a small fibroid on the anterior lip of the uterus, a large mass in front, and a smaller behind in the posterior uterine wall; slight coffee-coloured uterine discharge, not offensive. For the last six months she has been unable to keep down solid food.

On Dec. 2nd, at noon, chloroform was administered by Mr. S. Sidney-Turner, and Drs. Miller and Hetley and Messrs. Gandy and Plimmer assisted. The abdomen was opened by an incision five inches long below the hernial protrusion, through very thick and fat abdominal walls. On passing the hand into the abdomen upwards, some coils of intestine were found adherent to the cyst and forming the ventral hernia. On separating these, the cyst wall gave way, and some of the clear fluid contents were discharged into the abdomen and externally. The cyst was then tapped with Spencer Wells's trocar, and drawn gradually outside the abdomen, anterior omental adhesions being separated. After tapping several secondary cysts and freely opening them with scissors, the tumour was found to be held to the right brim of the pelvis by a strong and thick adhesion. This was torn through, upon which copious hæmorrhage immediately followed, filling up the pelvis and pouring out of the abdomen. A large sponge was firmly fixed upon the pelvic brim, the tumour drawn out, and the pedicle transfixed and tied with silk ligature. An adhesion on the posterior wall was then tied with catgut, two pieces of bleeding omentum were tied and cut away, and, after much difficulty, the vessel in the pelvic adhesion was secured and tied with silk. The uterus had a fibroid of the size of a walnut on the anterior wall, and another of the size of a mandarin orange on the posterior wall. The pelvis and peritoneum having been well sponged out, the wound was closed by four deep thick silver wire sutures and four superficial thin silver wire, and dressed with green protective and carbolic gauze, secured by strapping and flannel bandage over the whole. The quantity of fluid was five gallons, the weight of solid 3 lb. 4 oz. The operation lasted two hours, one of which was occupied in searching for the bleeding vessels. At 2 P.M. the pulse was 84, and the temperature 95·8°. She was ordered twenty minims of tincture of opium every three hours. At 8 P.M., pulse 104; temperature 96·8°; slight hiccough; ordered ice to suck.

Dec. 3rd.—Pulse 106; temperature 99°. In twenty-four hours nineteen ounces of urine were drawn off. Quite free from pain. At 12 o'clock the patient was ordered a teaspoonful of kreochyle every hour (she cannot take milk). At 8 P.M. the pulse was 110; temperature 100·4°. Has passed urine naturally once.

4th.—Pulse 104; temperature 100°. Passed a good night; no pain; the tincture of opium repeated every six hours.

Ordered a teaspoonful of kreochyle every two hours; beef-tea one ounce every two hours.—8 P.M.: Pulse 104; temperature 100·6°. Beef-tea causing nausea, the patient was ordered one drachm of an extract of beef, to alternate with the kreochyle.—3 P.M.: Passed flatus freely; urine thirty-five ounces in twenty-four hours.

5th.—Pulse 94; temperature 98·2°. Changed outer flannel bandage, as urine had been passed in sleep. Abdominal walls move freely in respiration.—8 P.M.: Pulse 100; temperature 100·8°. Passed forty-two ounces of urine in twenty-four hours.

6th.—Pulse 84; temperature 99°. Bowels acted freely under her. Ordered raw meat sandwiches and rice soft-boiled in beef-tea.—8 P.M.: Pulse 104; temperature 100·2°. Ordered one drachm of brandy every two hours. Passed thirty-five ounces of urine in twenty-four hours.

7th.—Pulse 84; temperature 98·2°. Was sick this morning after eating bread-and-butter. Ordered whiting, and one ounce of brandy every three hours. Dressed wound; all united; no discharge at any part. Good abdominal respiration, but much swelling (flatulent) at the upper and right side of the abdomen. Passed twenty-five ounces of urine in twenty-four hours.

8th.—Pulse 84; temperature 98·8°.—8 P.M.: Pulse 96; temperature 99·4°. Passed thirty ounces of urine in twenty-four hours.

9th.—Removed all deep and superficial sutures, applied strips of plaster, pad of dry lint and bandage. Passed thirty ounces of urine. Ordered fowl and ale.

From this time the progress was uninterruptedly good so far as the abdomen was concerned, but a troublesome bed-sore had formed. The slough separated on Dec. 19th, and disclosed a large and deep wound, which slowly healed, and she was discharged cured on Jan. 22nd, 1887.

Remarks.—One point of interest in the case was the resonance of the umbilical hernia mass with the dulness over all the rest of the abdomen. This was explained at the operation by the collapsed state of the afferent and efferent portion of the intestine which led to the coils in the sac. The strong adhesion of the back of the tumour to the pelvic brim did not admit of ligature before division, but the fact that it rested upon bony structure and not upon bowel admitted of its being torn forcibly, without other risk than the severe hæmorrhage which followed.

HERTFORD GENERAL INFIRMARY.

A CASE OF REMOVAL OF THE COCCYX; REMARKS.

(Under the care of Mr. WILLIAM ODELL.)

For the notes of the following case we are indebted to Mr. H. G. Shore, house-surgeon.

A housemaid, aged twenty, was admitted on March 3rd with the following history. Last July she fell and injured the bottom of her spine. She had also a second fall on the ice last December, and the coccyx was again injured. Since July she had felt pain at each catamenial period, but for the last five weeks the pain had been excessive and continuous when in the sitting position; there was also slight momentary pain on coughing. The pain and distress of late became so great that the patient begged to have the bone removed.

On examination per rectum, the coccyx was found to be bent at a right angle, in-curved, and pressing upon the rectum. It could be straightened at its lower part, but would not remain in position. On March 9th, the bowels having been previously freely relieved by a dose of castor oil, followed by an enema, the patient was placed on her left side and ether administered. An incision was then made from the end of the sacrum over the coccyx to its extremity, the parts being divided down to the bone, from which all ligamentous and muscular structures were then removed. The coccyx was separated at its junction with the sacrum, to which it had become ankylosed at an obtuse angle. There was rather copious hæmorrhage at one time during the operation, but it was controlled by applying sponges soaked in very hot water. A piece of gutta-percha tissue was put in for drainage, the wound closed with silver sutures, and dry boracic lint applied. In addition to the ankylosis with the sacrum—the result of previous fracture—the coccyx was found to be broken about an inch from its extremity, the lower part being freely movable. To avoid moving the dressing the urine was drawn off until the 11th, when the patient passed it herself by turning upon her face. Half a drachm of laudanum was given each night, and the bowels kept from acting until the 14th, when a dose of castor oil and a soap enema were given. The gutta-percha tissue was removed on the 13th and the sutures on the 15th. The wound healed almost by first intention; the patient made an uninterrupted recovery, and was discharged cured on April 7th.

Remarks by Mr. ODELL.—From the time of the operation until May 2nd the patient was entirely free from pain or even inconvenience when sitting, all the distressing symptoms which rendered the operation necessary had disappeared, and there was no pain or difficulty in defecation.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

The Relation of a certain form of Headache to the Excretion of Uric Acid.—Alcoholic Paralysis.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Dr. ALEXANDER HAIG communicated a paper on the Relation of a certain form of Headache to the Excretion of Uric Acid. Previous papers by the author on the influence of diet in this headache, and its clinical relationship to gout, are referred to. An investigation of the urine was undertaken with a view of testing the relationship to gout. Meat and cheese were taken with the object of bringing on a headache, for purposes of experiment. The relation of this headache to the excretion of uric acid at first appeared equivocal, but definite results were obtained on separating the urine excreted *during* the headache from that before and after. There appears to be retention of uric acid before the headache, excessive excretion during the headache, and diminished excretion after the headache. The excess during balances the diminution before and after; there is no absolute excess of uric acid; hence the previous equivocal results. During a headache there is little or no alteration of the excretion of urea. The relation of the uric acid to the urea is important, and is greatly altered during the headache. When, as the result of *plus* exercise, there is a large excretion of urea and uric acid (though in their normal relation), headache is not far off; and if anything causes the uric acid excretion to fluctuate, headache will be present during its excess and absent during its diminution. This fluctuation in the excretion of uric acid does not affect the urea, is temporary and transient, and there is proof that urates may accumulate, while the kidneys are quite sound. The theory which best explains everything in this connexion is that of diminished alkalescence of the blood. Does gout consist in a diminished power of forming ammonia to neutralise acids, resulting in a permanent diminution of the alkalescence of the blood? The influence of meat diet and beer in this respect, and the well-known connexion of fourpenny ale with gouty deposits, are referred to. A dose of acid, either introduced from without or formed internally, may cause temporary retention of uric acid, and so lead to headache. Beer will do this. Retention possibly does not explain everything, as the excess during the headache appears to exceed the previous retention. There may be temporary excessive formation as well, hence the good effect of salicylate of soda, which diminishes the formation of uric acid. The good effect of a meal on this headache is due to the fact that it increases for a time the alkalescence of the blood. Hence also the good effects of a somewhat vegetarian diet and alkalies in its treatment. The relation here shown between the headache and the excretion of uric acid has an important bearing on the pathology of gout and other diseases connected with uric acid, in demonstrating the way in which temporary retentions of uric acid may be occasioned, and in supporting the theory of diminished alkalescence of the blood, as a cause of these retentions.—Mr. G. D. POLLOCK related his personal experience of headache. The urine passed during the attack was always pale and clear. Bilious vomiting used to terminate the attack. Calomel soon afforded relief.—Dr. CHEADLE congratulated Dr. Haig on his valuable paper. He doubted, however, whether irregular excretion of uric acid would explain all headaches. Women who were not large meat eaters suffered from this headache. After railway journeys or anything

causing vibrations the headache could hardly be due to faulty excretion of uric acid. He knew a boy who journeyed from Ireland to Eton and always had a prostrating headache, the result of this journey. The scent of strong flowers—e.g., hyacinth—also caused a headache. He (Dr. Cheadle) also suffered from megrim if for one hour he remained in an ill-ventilated room. A good dose of wine would sometimes cause megrim to disappear, and this seemed to militate against the views advanced.—Sir DYCE DUCKWORTH referred to the two classes of large eaters and drinkers, and those who could not eat or drink to excess without suffering soon from headache and other symptoms. This latter class had a smaller margin for the disposal of excess of food, and he supposed that Dr. Haig belonged to this class. He thought that the author deserved great credit for so painstaking an investigation.—Dr. PERCY KIDD was conscious of at least two sorts of headache: one for which no remedy is useful; the other brought on by obvious causes, and easily relieved by stimulants and other means.—Dr. WARD thought there were three sorts of headache, in his own experience. Tiny little chalk stones from the joints of the hands were obtained at the age of fourteen, when the real megrim began. The nervous headache was probably quite distinct in its causation from that which arises from inspecting a picture gallery or from excitement. This latter kind may be relieved by a dose of strychnine. Other headaches experienced by him were amenable to sal volatile. Bottled beer is less liable to cause headache, owing to the soda added. A specific gravity of 1030 was also noticed, followed by a copious deposit of urates. Sometimes a decided exaltation of spirits preceded the severe form of headache.—Dr. HINGSTON FOX inquired as to the method of estimating uric acid best adapted for clinical work.—Dr. HAIG had noticed the light colour of the urine, but this seemed to have no relation to the amount of uric acid. He explained his views of the relation of diminished alkalescence of the blood as causing a retention of uric acid.

Dr. DAVID W. FINLAY read a paper on three cases of Alcoholic Paralysis (multiple neuritis). The three patients, all married females, came under the care of the author in the Middlesex Hospital in the course of last year. The first case, E. F——, aged twenty-eight, a confirmed drunkard, had suffered from weakness in the knees for more than a year. To this succeeded difficulty of walking, and numbness in the hands and arms, soon followed by paralytic symptoms. In the hospital she lay helpless in bed with the legs flexed, rambled in her talk, and had delusions. The muscles of the arms and legs were much wasted, and she had double wrist drop and foot drop, with much pain on pressure or passive movement, and abolition of plantar and patellar reflexes. She had complete control over the bladder and rectum. Abundant large and small râles were heard over both lungs, and the epigastrium receded during inspiration. The liver was enlarged. On electrical examination the muscles of the legs and arms generally showed the reaction of degeneration. The optic discs were normal. She gradually got worse and died on the seventeeth day after admission. The urine was normal, and the temperature hectic throughout. Post mortem, the lungs were found to be the seat of tubercular disease, and the liver was large and fatty. On microscopic examination the cord and spinal roots were normal; all the nerves examined showed advanced degenerative changes, and the extensor carpi radialis longior muscle was crowded with connective tissue nuclei and round cells. The second case, M. J. P——, aged twenty-eight, had a history similar to the other, and the symptoms were much the same as regards the nervous system. There was less degenerative reaction, however, and less wasting. The temperature was seldom above normal. The liver was enlarged, but the lungs were not diseased. At the post-mortem examination the brain and its membranes appeared normal; the cord on section seemed somewhat atrophied in the grey matter, but no other change was noted. Under the microscope the cord did not present such a typically healthy appearance as in the former case. The greater number of the large cells in the anterior cornua were shrunken, the branching processes were less clearly defined, and many had dropped out of their places, leaving holes in the section; but the results were probably due to comparatively unsuccessful preparation. Most of the nerves examined showed changes similar to those found in the other case, but these were less strongly marked, except in the anterior tibial nerve. The spinal nerve roots were sound. The third case, E. C——, aged forty-three, resembled the other two as regards the history and many of the clinical phenomena, differing, however, in result, slowly progressive recovery having taken place. She has regained the use of her limbs, can now walk and dress herself without help, and has lost her delusions. The reflexes, however, have not yet returned, and her feet and legs have lately become œdematous. Reference was made generally to the clinical and pathological history of the disease, and particularly to the history of the individual cases as excluding the idea of causes other than alcoholism being concerned in the production of the symptoms. The frequent coexistence of tubercular disease was also discussed, and reference made to a recent paper by MM. Pitres and Vaillard in this connexion. The paper concluded with a few remarks upon the treatment of the case which had recovered. Microscopic specimens and drawings were shown.—Dr. HALE WHITE said that the cases bore out a clinical observation he had made, that the alcohol concentrated its action on one set of tissues, and those chiefly where the inflammation commences. The vessels were thickened secondary to perivascular changes. The change in the muscle was peculiar. In syphilitic and alcoholic neuritis he had observed no secondary influence on the skin. The bladder and the rectum were usually not affected, and this was rather to be surprised at.—Dr. HADDEN remarked on the legs being not very uncommonly in a state of flexion, and was glad to find this observation corroborated. Cutaneous hyperæsthesia was not marked, and as a rule he had not found tenderness of the nerves. Perforating ulcer, œdema, erythema, falling off of toe-nails, bullous eruption, and other trophic lesions he had observed in alcoholic paralysis. In five fatal cases he had examined the spinal cord was normal. In four there was phthisis also. Lancereaux had detected a slight sclerosis in the antero-lateral columns of the cord. The tendency to label all cases as alcoholic should be deprecated; other causes might cause the same grouping of symptoms.—Sir DYCE DUCKWORTH had had four cases in women during the last six months. The history of alcohol was not always easy to elicit. He had no doubt that alcohol did pick out certain tissues and act in certain lines. The condition of the muscular fibre was new to him. Muscular hyperæsthesia was to be observed, and he had noticed tenderness of the peripheral nerve trunks.—Dr. ORMEROD had noticed tenderness of the nerve trunks, and also one case at least of cutaneous tenderness. The muscular tenderness might be ascribed to an inflammatory condition. The infiltration of leucocytes could hardly be explained on the degenerative theory of the nervous changes. He had also observed the flexion of the legs. It would be important to have a guide to prognosis. The mental condition was an important point, was often characteristic, and might serve to differentiate cases of peripheral neuritis. The patient possessed great aptitude for giving circumstantial accounts of occurrences that have never happened. Mistaking the identity of places—e.g., supposing that the hospital was Newport Market—was also a feature in the mental condition.—Mr. JESSOP referred to the state of the optic nerves. If alcohol gives rise to amblyopia, these were the cases to investigate. The French ascribed the central scotoma to alcohol, and the English to nicotine. A case of central scotoma for red and green in a woman, who, however, smoked, was mentioned.—Dr. FINLAY said the vision was normal. The perineuritis might lead to degeneration by shrinkage of connective tissue, causing degeneration by pressure. He had satisfied himself that there was nerve tenderness.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on May 6th, Dr. Alderson, President, in the chair.

Clinical Cases.—Mr. KEETLEY showed a case of Excision of Epithelioma of the Fauces, affecting the adjacent parts of the palate, tongue, and maxilla, with previous ligature of the external carotid; Mr. EDWARDS, a case of Recent Suture of the Patella; Mr. WAINWRIGHT, a case of Suture of the Patella; and Mr. DUNN, a case of an Albino.

Some of the Rarer Forms of Rectal Fistulæ.—Mr. EDWARDS read a paper upon this subject. He first drew attention to the difference of opinion existing between surgeons concerning the question of dealing with the sinus which extends upwards by the side of the bowel from the internal opening

of a complete fistula. He considered that the treatment should depend upon the position of the sinus to the muscular coat of the bowel; if submucous it should be laid open, but if submuscular it is better to leave it, thus avoiding the risk of incontinence due to division of the fibres of the internal sphincter. A cure may be looked for after the frequent injection of the sinus with tincture of iodine. After touching upon some of the more frequent errors in diagnosis and operative treatment, the author pointed out that there seemed to be a definite relation between the internal and external orifices of a fistula. For fistulæ having their external orifices situate behind a plane passing transversely through the centre of the anus usually have their internal aperture in the middle line dorsally, while those with their external orifice in front of this plane generally terminate in an internal opening immediately opposite, thus forming a simple, straight, complete fistula. The author then spoke of horseshoe fistulæ, which he defined as being a fistula with one or more external orifices on either side of the anus, with an internal one in the middle line behind. He said that not only were the descriptions of this form unsatisfactory, as found in most special works on the rectum, but the operative measures, when mentioned, left much to be desired. Surgeons of the present day when operating upon horseshoe fistulæ either slit up the sinus on both sides of the gut, thus dividing the sphincter in two places, or they content themselves with the division of one sinus, hoping that the other may heal of itself, with or without the insertion of a drainage-tube. The operation recommended in these cases, and for which the author said he had to thank his colleague and friend, Mr. Goodsall, was as follows:—Complete division of the sphincter in the middle line dorsally, laying open the abscess cavity and internal opening, and the subsequent slitting up of each lateral sinus from the external orifice to the central dorsal incision. By this means the whole of the fistulous track would be laid open and the sphincter would only suffer one division, and this in the most favourable manner—viz., at right angles to its fibres, thus avoiding all risk of subsequent incontinence, which so often happens after the operation as usually practised. In conclusion, the author related two interesting and rare cases: one of fistula completely encircling the bowel, and the other of fistula originating in the pelvi-rectal space—i.e., between the bowel and levator ani muscle.—Mr. WHITMORE referred to that form of incomplete internal fistula which was associated with phthisis, and remarked that rectal fistulæ should always be operated upon early.—Mr. KEETLEY related the case of a married lady from whom he removed a growth the size of a Spanish nut from the submucous tissue of the rectum; the operation was followed by a fistula, which was treated by division of the sphincter, and a complete cure resulted.—Mr. BENHAM narrated some cases of rectal fistulæ which he had treated with success by injecting carbolic (1 in 20) solution.—Mr. S. BENTON made some remarks upon the blind internal horseshoe fistula, which he said Mr. Edwards had not mentioned.—Mr. CHAPMAN had used pure carbolic successfully in three cases of rectal fistula.—Mr. EDWARDS, in reply, said that no reliance could be placed upon the cure of a case with carbolic injections. The experiment could be tried, but division of the sphincter was usually called for. In phthisis the patient derived benefit by having his rectal fistula operated upon.

Some Points in the Selection and Administration of Anæsthetics.—Dr. HEWITT read a paper upon this subject, and said that he wished to limit his remarks to the consideration of the following points:—1. The best method of administering nitrous oxide and ether, either in succession or in combination. 2. The prevention of vomiting during or after the administration of an anæsthetic. 3. The danger of inducing general anæsthesia in persons so suffering from obstructive dyspnœa. 4. The possibility of dangerous symptoms occurring from the administration of opium or morphine prior to chloroform, ether, or other anæsthetics. He exhibited an apparatus which he had used for three years in hospital and private practice. It consisted of a Clover's portable ether inhaler fitted with a special form of face-piece, and with a bag capable of holding two gallons of gas. By means of this apparatus any desired combination of nitrous oxide and ether could be given. The amount of gas in the bag was always sufficient, when administered with the face-piece shown, to anæsthetise a patient before gradually admixing the ether vapour; and the whole apparatus was portable and could be changed before entering the room in which the operation was to be performed. By means of this apparatus there was no sudden transition from nitrous oxide to ether as when face-pieces were changed during the administration. Vomiting could be prevented by rapid and deep anæsthesia. In a large number of cases he had given half a grain of cocaine in half an ounce of water shortly before the administration of an anæsthetic. This was done with the object of lessening the sensibility of the gastric mucous membrane. Vomiting after anæsthetics was best prevented by keeping the patient upon his side, and by moving him as little as possible. The danger of inducing anæsthetic sleep in persons suffering from obstructive dyspnœa was then considered. Patients in this condition were dependent for their existence upon an increased activity of their respiratory mechanism, and failure of respiration was very likely to ensue under chloroform or ether.—Mr. LLOYD showed an improvement in ether inhalers, which consisted in a bag of very fine indiarubber, the cost of which would be found to be so immaterial that one could be used for each patient anæsthetised. The bag would, of course, take the place of the ordinary bag as used at present, and would be destroyed after use; thus the ether apparatus could not become a source of infection by either the tubercle bacillus or any infectious disease.—Mr. DAVIS said that chloroform was the best anæsthetic in ovariotomy.—Mr. MACKINLAY remarked that he always insisted upon a patient being deeply under the influence of an anæsthetic before dividing the optic nerve in enucleation of the eyeball. Partial anæsthesia, he thought, was in such cases fraught with some danger.—Mr. ALDERTON related the case of a man who died under ether, who had been admitted for a small operation upon the mouth. He deprecated the custom of admitting patients into hospitals, and hurriedly operating upon them without preparing them.—Dr. HEWITT replied.

On the Association of Mitral Stenosis with Gout and Granular Kidneys.—Dr. G. N. PITT read a paper on this subject, upon which it was not possible for a discussion to take place, owing to the shortness of time.

Mr. DUNN showed the following pathological specimens: (1) Sarcoma of the Os Uteri; (2) Sarcoma of the Dura Mater; (3) A Kidney and adjacent parts, showing a large Extravasation of Blood into the Peri-renal Tissue of the Left Side.

Mr. BENTON showed a Pedunculated Growth removed from the rectum of a man forty-six years of age.

ACADEMY OF MEDICINE IN IRELAND.

Malignant Disease of the Stomach, &c.—Fibro-Sarcoma of the Orbit.—Trephining for Epilepsy.

AT the meeting of the Pathological Section held on March 11th,

The PRESIDENT showed specimens of Malignant Disease of the Stomach, Pancreas, Liver, Kidney, &c., taken from a young man aged twenty. The patient was admitted into Sir Patrick Dun's Hospital on Jan. 11th, and died on Jan. 22nd. Two years previously he was attacked with heartburn, retching and vomiting, and epigastric pain. At the post-mortem the stomach was found to be greatly distended; pylorus constricted, and its walls dense and white; a mass of new growth in edge of falciform ligament, and one or two nodules on the liver; walls of gall-bladder invaded by the neoplasm; cavity small, containing green mucus; cystic duct occluded; dense mass of new growth, involving stomach, pancreas, right kidney, &c., and extending back to the spine. Left kidney healthy on section; right kidney invaded by neoplasm; portal vein pervious; abdominal aorta constricted by surrounding mass of new growth; right upper surface of diaphragm studded with white nodules. An immense number of round, flattened nodules all over each lung, and also internally, radiating from root. Heart and pericardium normal.

Mr. SWANZY exhibited a Fibro-sarcoma, about the size of an ostrich's egg, which he had successfully removed from the orbit of a boy, aged eleven years, and which had a history of four years and a half. The eyeball had become dislocated upwards under the upper lid, by which it was completely covered, and sat on the top of the tumour, but retained its consensual motions to a slight extent, notwithstanding its very abnormal position. Owing to the presence of the tumour, the orbit had become much increased in size, measuring 7 cm. vertically, 6·5 cm. horizontally, and 4·5 cm.

in depth. The patient, who was exhibited, made a perfectly good recovery.

Mr. M'ARDLE read a paper on Sarcoma, detailing cases which showed the deterioration of the different tissues of the body, apparently as a result of the disease. He noticed in all his cases a great diminution of the red corpuscles of the blood, and a slow and incomplete coagulation of that fluid. In these cases he met with spontaneous fractures, and on examining the bones he found them brittle, and the red marrow in a state of fatty degeneration. In seeking an explanation of the decrease of red corpuscles in the blood, he concluded that the destruction of the red marrow of the bones led to a diminution of their manufacture. He explained the emaciation of the patient by the lessened oxygenating power of the blood, which, in some of the cases, looked like serum, so poor was it in corpuscles.

Mr. W. I. WHEELER gave a description of a Calvaria and Brain after Trephining for Epilepsy, and exhibited specimens.—Mr. STORY asked what was the use of trephining for epilepsy if the seat of the affection were, as Mr. Wheeler had said, the medulla oblongata or the pons. Epilepsy was interesting from an ophthalmic point of view. It was known that after epileptic seizures the patients frequently had either transitory or permanent affections of their field of vision, and it was a curious fact that these affections took the form of concentric limitations of the fields of vision of both eyes. It was well known to those present that when a patient suffered from a lesion at one side of the brain, whether caused by a tumour or otherwise, his visual apparatus was damaged, but the effect produced was that there was a loss by both eyes of one half of their field of vision, the halves lost corresponding to the visual centre on the side of the brain affected. But after epileptic seizures the limitation was concentric, though also affecting both sides; and the explanation of this which had been put forward assumed that the seat of the epilepsy was not in the medulla or the pons, but in the cortical centres.

Secondary Suture of Ulnar and Median Nerves.—Excision of the Knee Joint.

At the meeting of the Surgical Section held on March 18th, Mr. J. H. SCOTT read a paper on Nerve Suture. The subject was a young man, aged twenty-one. He sustained an injury to the palmar surface of right forearm, about an inch and a half above the wrist joint, by putting his hand through a plate of thick glass. The accident occurred four months prior to admission into the Adelaide Hospital. There was distinct evidence, from the condition of the hand, that the ulnar and median nerves had been completely divided, without any attempt at regeneration. On April 16th, 1886, eighteen weeks subsequent to the injury, the ulnar nerve was sutured, three catgut ligatures being introduced to bring the freshly-cut surfaces together. Five days after the operation sensation had markedly improved. The patient returned to the hospital in the following August, being desirous of having a similar operation performed on the median nerve, on account of the success of the former procedure. The median nerve was consequently sutured on Aug. 31st, almost ten months having elapsed since the injury. Three weeks after operation the patient could distinguish the touch of a pin's point anywhere in the area of distribution of the median nerve. Mr. Scott stated that the result so far has been very satisfactory, nutrition of parts becoming rapidly normal. Judging from present appearances, there is every hope that the hand will become perfectly restored to usefulness.—Sir WILLIAM STOKES recalled a similar operation by Mr. Wheelhouse of Leeds, who related the details at the meeting of the British Medical Association in Bath. A man, having fallen accidentally on the sharp edge of a scythe, sustained a deep wound on the back of the thigh, followed by paralysis both of motion and sensation. About eighteen months after the accident Mr. Wheelhouse cut down on the sciatic nerve, which he found completely divided, and brought the ends together by sutures. There had been extreme muscular atrophy; but after the operation the man was soon enabled to return to his ordinary avocation as a field labourer. Thus was proved the efficacy of the operation, despite the lapse of a long interval since the injury. Dr. Scott's case was a further illustration of the great importance of nerve suture.

Mr. W. THORNLEY STOKER read a paper on some Elements of Success in Excision of the Knee Joint. He considered that the results of excision of the knee had been too favourably stated, and that many cases recorded in their early history as having been cured, had later on shown a return of disease. Age had been over-estimated as an influence for good or evil in this operation. Three things were to be regarded as of superlative importance in the prospect of success in excision of the knee—(1) complete removal of all diseased structures; (2) relative permanence of dressing; and (3) thorough fixation of parts. With regard to the first, he laid great weight on the careful removal of diseased synovial membrane, the commonest seat of tubercular foci, and the most troublesome to extirpate. In speaking of the second, he dwelt on the necessity for all oozing to have ceased before the dressings were applied, and argued against the use of Esmarch's bandage. He advocated the use of dry dressings, and the performance of the first dressing two or three weeks subsequent to operation. Speaking of the third point, Mr. Stoker recommended the use of Dr. Heron Watson's splint as modified by Mr. Thomson, and opposed the use of plaster-of-Paris as a retentive apparatus. He described the method of "dowelling" which he had devised as a means of securing the bones, and which he had found most satisfactory.—Sir WILLIAM STOKES said the plan of fixation of the bones devised by Mr. Thornley Stoker should be welcomed by every operating surgeon as superior to any other method of bone suture. Speaking of dowelling from the experience of his cases, he negatived the production of irritation or of suppuration in the part operated on.—Mr. FRANKS, taking *seriatim* the three points raised in Mr. Stoker's paper, said, with regard to the first, he concurred as to the removal of the synovial membrane, failure being mainly due to leaving foci of disease either therein or in the tissues round the joint. As to the second, the dry dressings were of inestimable value in keeping the part at rest without the discomfort of repeated dressings. He himself provided drainage by turning in little tongues of skin at the angles of the wound and stitching them to the back part of the soft tissues, without leaving any foreign body in the wound except the silver wires. As to the third point, he employed the dowels in one case, which afterwards failed from other causes. At the same time, the dowels kept the bones in good apposition, and brought about satisfactory union. Still, while the fixation of the bones was satisfactory, he was not prepared to say that the dowels were better than the wire sutures.—Mr. Croly, Mr. Lentaigne, Dr. Kennedy, and Mr. Thomson also spoke.

Prevention and Treatment of Disease.—Latent Typhoid Fever fatal through Cardiac Thrombosis.

At a meeting of the Medical Section held on March 25th, Dr. C. F. KNIGHT read a note on the Prevention and Treatment of Disease. A fever may abort at any time—spontaneously or by the administration of therapeutic agents. Acute articular rheumatism may be treated by one of seven plans—viz., alkaline, quino-alkaline, mint-water, salicylic acid and salts, salicin, chalybeate, and eclectic. Advantages of alkaline treatment: First, rapidity of action; second, absence of cardiac complications; third, rapid defervescence. Quinine, an antipyretic and antiseptic, must be given with greater regularity, and in sufficient doses to produce satisfactory results. A tolerance may exist. In 1883 the author gave the largest quantity of quinine ever recorded to one patient—viz., in twenty-four hours, 131·25 grains; five grains subsequently produced cinchonism. Temperature analogous to septicæmia. Quinine may fail to reduce temperature; alkalies rarely do. The author believes that mint-water, salicylic acid and salts, and salicin influence the disease, because they are antiseptics. Cases where rheumatoid fibro-ankylosis of vertebræ and joints exists are well treated with small doses of salicylate of sodium, assisted by massage. As to the pathology of acute articular rheumatism and other diseases, the manifestations may be due to organisms in the blood, which are destroyed by antiseptics, and cannot live in a strongly alkaline medium. Source of organisms: 1. Outer world, through ingesta, or by gases inhaled. 2. May arise in digestive or respiratory tract, as by germs introduced, or coalescence of organisms, which separately are innocuous. Do normal digestive ferments ever give rise to morbid processes? Means of combating disease, dietetic, hygienic, and therapeutic; farinaceous food causes a rise in temperature in febrile affections. Therapeutic agents to include—1. Abortives. 2. Inhalation of gases. 3. Antiseptics, as turpentine, in acute croupous pneumonia. 4. Rectal in-

flations of medicated vapours, which was advocated as a means of combating disease, fevers, phthisis, and cholera in 1878. 5. Atomised liquids, a spray of a solution of cuchlorine, cooling and grateful in fevers, and where thirst is a prominent symptom. The best abortive for diphtheria, croup, mumps, and the exanthemata is red iodide of mercury, prescribed in hospital in these diseases since the commencement of 1884; dose, one-sixteenth of a grain thrice daily in the form of pilules, first dose a double one. Children bear this treatment well. In adults it may cause colic; if so, allay with an opiate, which increases action of mercurial. Opportunity for trying this treatment now offers in the present epidemic of scarlatina. The author requests physicians to adopt this plan, and to communicate the results of their observations to the Academy.—The PRESIDENT expressed his dissent from Dr. Knight's views as to the superiority of the alkaline over the salicylate treatment of acute rheumatism, and drew attention to the fact that some patients in rheumatic fever continue to suffer from the pains, no matter what drug is administered, until milk is excluded from their dietary.—Dr. KNIGHT, in reply, urged the desirability of resorting to therapeutic agents, which appeared to act as abortives, instead of trusting solely to isolation. There was a distinction between salicylic acid and salicylate of soda, and he spoke of cases treated with the acid and not the salt.

Dr. A. MONTGOMERY read a case, communicated by Surgeon-Major E. HARMAN, A.M.S., of latent Typhoid Fever, which proved suddenly fatal without the disease having been recognised during life. The patient, a dragoon of splendid physique, aged forty, was admitted to hospital for slight eczema of the left leg, which readily yielded to treatment. He never complained of any symptoms, abdominal or otherwise, except a slight cough, for which the usual remedies were applied; the temperature was taken on several occasions, both morning and evening, without finding any rise above normal. However, on the sixteenth day from his admission, after being up and about as usual, he vomited about a pint of fluid resembling coffee grounds, and expired immediately afterwards, being quite conscious and free from pain to the last. A post-mortem made three hours after death revealed a dense fibrinous clot, of a pale amber colour, occupying the right auricle and ventricle, firmly adherent to the endocardium and tricuspid valves, and extending into the vena cava and pulmonary artery. The parietal and visceral peritoneum was covered with thick masses of recent lymph, and the peritoneal cavity contained about two pints of semi-purulent serum. Just above the ileo-cæcal valve, the ileum, on the anterior free surface of the bowel, presented an oval open gangrenous ulceration, about three inches in length and half the circumference of the bowel in breadth, destroying all the coats of the bowel; and although opening freely into the peritoneal cavity, there was no extravasation of the intestinal contents. There was another gangrenous patch about six inches higher up, and Peyer's patches exhibited every stage of the disease.—Dr. FINNY said the case brought forward by Surgeon-Major Harman was one of great interest and rarity. In enteric fever, until the post-mortem examination was made, it was difficult, if not impossible at times, to give an accurate diagnosis, and sometimes during life the ulcerating process may advance unnoticed until marked by a gush of hæmorrhage. The present case revealed an interesting clinical fact, that the patient had marked pathological lesions of several hours', if not days', duration, without having presented any subjective symptoms. There was no evidence that death was caused either by thrombus of the heart or embolus of the pulmonary arteries. The action of the peritoneal inflammation, as it became developed, produced weakness in an already fatty heart; and the clot found in the right ventricle was really the result of a failing heart in the death agony, and not the cause of death.—Dr. JOHN WILLIAM MOORE concurred in the conclusion that the pathological appearances in the intestine were those of enteric fever.—Dr. DUFFEY said that his reading of the case was that death was due to simple collapse, the result of perforation of the intestine—a view which was borne out by the history of the case. There was nothing in the lung to suggest that death should be attributed to pulmonary thrombosis. Cardiac thrombosis was an uncommonly rare lesion.—Dr. KNIGHT said the case presented the characteristics of general septicæmia, of which enteric fever might be regarded as a variety; but the enlargement of the viscera and the intestinal ulceration did not constitute sufficient evidence of its being one of true septicæmia. In gynæcological cases adhesions were found without any history of severe attacks of pain or serious inconvenience to health.—The PRESIDENT said that he considered this case one of typhoid fever, but it was rare indeed to have such a normal temperature and an entire absence of severe symptoms before the fatal termination.—Surgeon-Major HARMAN, in reply, said the temperature was taken by the ward master, an intelligent non-commissioned officer, about a dozen times, by means of the ordinary clinical thermometer, in the axilla, and it was never above 99°. There was softening of the mesenteric glands. The clot found in the heart was of a pale colour, and firmly adherent to the endocardium.

MIDLAND MEDICAL SOCIETY.

A MEETING was held on April 13th, Mr. Lloyd Owen F.R.C.S.I., President, in the chair.

Talipes Calcaneus.—Mr. EDWARD FREER showed two cases of Talipes Calcaneus that he had treated by tenotomy at the Orthopædic Hospital. The section was made obliquely, and the tendon sutured by kangaroo-tail tendon, as suggested by Mr. Walsham. The results in both cases had been highly satisfactory, no signs of relapse having occurred after a period of six months from the operation. This was performed with antiseptic precautions, the feet being extended to their utmost and retained there by plaster and an anterior interrupted splint. Mr. Freer pointed out the necessity of ascertaining before operating whether there was sufficient nerve power in the paralysed limb to prevent a recurrence, and also the advantages of galvanism and massage for some time after.

Ruptured Brachial Plexus.—Mr. MORRISON showed a man, aged forty-six, who was admitted into the General Hospital, under Mr. Bartleet, on Dec. 27th last. He had fallen a distance of forty feet upon some loose bricks, and had sustained fracture of the right upper ribs, right clavicle, and lower jaw, together with rupture of the brachial plexus, and probably laceration of the inner coats of the axillary artery, on the same side, with occlusion of the vessel. There was emphysema of the chest wall, neck, and right upper limb as low as the wrist. For about ten days he remained in a critical condition, with collapse of the right lung, bronchitis, and delirium; but eventually he convalesced and became an out-patient; the upper limb, however, remaining paralysed, both as regards motion and sensation in the area of distribution of the brachial plexus. The limited movements that remain appear to be imparted by the trapezium. Anæsthesia of the limb is complete, excepting in the part supplied by the intercosto-humeral, descending branches of the cervical plexus, and possibly also by some filaments of the circumflex. Pulsation in the axillary artery ceases abruptly below the clavicle. The right pupil has remained persistently smaller than the left, indicating lesion of the sympathetic in the neck. Massage and galvanism are being used to the limb.

Dr. SUCKLING showed a woman aged forty, who presented the appearances of Myxœdema in a typical form. He also introduced a patient who had been successfully treated by trephining for Jacksonian Epilepsy. Dr. Suckling also exhibited a number of Sphygmograms.

Mr. JOHN TAYLOR read a paper based on a series of twenty-three consecutive cases of Abdominal Section.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on Friday, April 15th, Mr. Hatherly, President, in the chair.

Dr. HANDFORD showed the following cases:—Neuritis of the Ulnar Nerve following typhoid fever; Empyema in a man aged forty-one, cured by opening and drainage; Aneurysm of the Arch of the Aorta, with Paralysis of Left Vocal Cord, in a man aged forty-three; Aneurysm of the Arch of the Aorta, with Paralysis of Left Vocal Cord, in a man aged fifty-six.

Dr. HANDFORD also showed a case of Aneurysm of the Aorta for Dr. Ransom.

Mr. ANDERSON reported a case of Bullet Wound of the Brain, and showed the specimen.

The PRESIDENT read a paper on Infant Feeding for Dr. Marshall.

Reviews and Notices of Books.

A Text-book of Medicine for Students and Practitioners. By Dr. ADOLF STRÜMPELL. Translated from the Second and Third German editions by HERMAN F. VICKERY, A.B., M.D., and PHILIP COOMBS KNAPP, A.M., M.D., with Editorial Notes by FREDERICK C. SHATTUCK, A.M., M.D. London: H. K. Lewis.

THE readiness with which our American *confrères* undertake the translation of the best German works deserves to be widely recognised. Had it not been for their enterprise and devotion many such writings would have remained practically unknown to the English practitioner, who has derived so much instruction from their perusal. One involuntarily calls to mind the work of Niemeyer, which on its first appearance fascinated the medical world. There was a thoroughness of treatment and a freshness of style about that book which could not fail to impress the reader, and which gave the work a widespread popularity; but text-books are apt to fall behind the times, and require in these rapidly progressive days to be constantly renewed and re-edited if they are to retain their popularity; and they are apt to lose their original uniformity and spontaneity of expression by being refurbished at the hands of others. If only therefore as an exposition of modern medicine from the heart of "young Germany," we should welcome this edition of Dr. Strümpell's admirable text-book. Its publication will, however, increase considerably the difficulties of choice before teachers and students by adding another text-book upon medicine of high merit to those already in existence.

So far as it has been possible for us to judge, Dr. Strümpell's work will bear favourable comparison with others of the same class. It is not the mere compilation of an industrious student, but it bears ample evidence of the independent observation and thought which add so much to the force of an author's teaching. The author, too, is already well known in clinical medicine. His contributions to neurology are widely known and acknowledged, and this fact must render the chapters in the present work dealing with diseases of the nervous system especially valuable. They form, indeed, an admirable treatise in themselves, covering a wide field in a masterly manner. Nevertheless, Dr. Strümpell shows that his attention has not been wholly engaged by this department. The rest of the work is written with as much evidence of personal knowledge as that dealing with diseases of the nervous system. That he is thoroughly imbued with the importance of modern researches into the etiology of disease is evident in the chapters which deal with the acute specifics. "The cause of typhoid fever must be sought," he says, "in some specific organised pathogenetic poison," and he considers that the bacillus discovered by Koch and Eberth is apparently that poison; erysipelas is "a disease of the skin excited by the presence of a specific pathogenetic micrococcus" (p. 57). "Beyond a doubt the diphtheritic poison is organised" (p. 62); but the difficulties of its isolation are admitted, and the proof of its presence is said to be as yet inconclusive. Even more dogmatic is the following statement with respect to cholera, which would hardly be subscribed to by Dr. Klein. Dr. Strümpell says (p. 73): "Some time ago it had become evident that the real cause of cholera consists in the infection of the system by a specific micro-organism. Koch was, however, the first to succeed in the search for the poisonous agent"; and after giving Koch's views upon the comma bacillus, he goes on to say, "These statements have been since confirmed by all competent investigators, while the various alleged refutations of Koch's results have all proved erroneous." These extracts suffice to show the spirit in which the author writes, and there is something to be said for the adoption of clearly defined views upon the etiology of specific diseases such as are afforded by bacteriology. An English author would, however, have expressed himself more cautiously—though perhaps not to more advantage in imparting clear ideas to the student. The fact is that upon this vast question of etiology we have arrived at a period when opinions and facts are strangely commingled, and we have to break away from old ideas before we can place ourselves in a position to assimilate the new.

The system employed in the description of diseases is orderly, and the arrangement of facts is good. It is a novel, but decidedly beneficial, departure to find the symptomatology of such a disease as typhoid fever, for instance, described side by side with descriptions of the anatomical lesions. Some of the subjects also are introduced by chapters giving a general survey of the anatomical and physiological facts underlying the morbid conditions subsequently dealt with—a plan which is followed to the fullest extent in the section of diseases of the nervous system.

We have little doubt that this work will be favourably received in this country, as it has been in Germany, where within a few years it has run through three editions. Its value has been decidedly enhanced by the pains taken by the editor, Dr. Shattuck, who has made several additions—particularly in the subject of "Treatment," and elsewhere—that contribute to its completeness. The translation has been well executed, and the book produced in a single well-printed volume. We have no hesitation in recommending it to students; whilst there must be many practitioners who will be glad to have the opportunity of becoming familiar, through its pages, with the present standpoint of scientific medicine.

Nervous Diseases and their Diagnosis. By H. C. WOOD, M.D., LL.D. Philadelphia: J. B. Lippincott and Co. 1887.

Diagnosis of Diseases of the Nervous System. By C. W. SUCKLING, M.D., M.R.C.P. London: H. K. Lewis. 1887.

NOTWITHSTANDING the abundance of works and books on diseases of the nervous system, we think that good reasons may be found in both the present books to justify their existence. The chief excellency of Dr. Wood's book is its suggestiveness, and of Dr. Suckling's its conciseness. We shall illustrate our remarks in commenting on the books before us by selecting for special treatment one subject in each, taken not at random, but as fairly representing the general character of each work.

Dr. Wood is perhaps best known in this country for his work on Chorea, and we shall examine his article thereon. The first statement is not one to which we can attach any importance: Acute general chorea is usually due to St. Vitus's dance. Whatever is, is. In the definition of St. Vitus's dance, Dr. Wood says "there is often a distinct loss of muscular power." Our own way of writing this sentence would be, "there is always loss of power of volitional movements." Dr. Wood thinks enough evidence may be adduced to prove the existence of reflex chorea. In our belief, in most cases of "reflex" chorea the special irritant—e.g., intestinal worms—is but one of many causes of the chorea, the main cause being the irritable state of the motor centres. We concur in the statement that "an acute chorea may be intimately associated with minute cerebral embolism, and also with other lesions of the brain, among which lesions may be especially mentioned the peculiar alteration of the ganglionic cells of the brain, noted by Meynert as pervading the whole organ in a case of chorea." At the same time, we cannot but think that chorea may coexist with defects in the "motor" cells, without these being recognisable by any means of research at present known to us. Indeed, a page or two further on Dr. Wood clearly states the case. Chorea of pregnancy, hysterical

chorea, electric chorea, rhythmical spasms, local choreas, chorea of stumps, chorea in internal inflammations, and habit choreas are other varieties recognised by Dr. Wood, and it is in thus boldly naming various varieties that we see the suggestiveness which is the leading feature of the book. We cannot, however, agree with all that the author states under these various headings, and are inclined to think that his shots are often wide of the mark. For example, we can see no striking analogy between the chorea that may accompany internal inflammations and that twitching which goes by the name of paramyoclonus multiplex. Our recommendation of Dr. Wood's book cannot be to students, but to those who have already acquanted themselves with neurology it will doubtless afford much interest and some instruction.

Our selection from Dr. Suckling's book is the chapter on Diseases of the Peripheral Nerves, consisting of thirty-one pages, and there is a great deal of information imparted in this brief space. "Qualitative electrical changes are always present in severe cases, the faradaic response being lost and the reaction of degeneration present," is not sufficiently clearly put for a student to understand; it would have been better to say that qualitative electrical changes are always present in well-marked cases, the reaction to faradaism being diminished or lost, the reaction of degeneration being usually present (see p. 144). Bearing in mind that we look for faults as well as excellences, we cannot but object to the looseness of such an expression as the "myeline and axis cylinders being broken up" (p. 263), though we may admit that in the space occupied a better description could scarcely be expected. But the truth is, we look in vain for ground for any serious criticism of Dr. Suckling's little book, and we feel bound to give it the warmest reception; our only doubt about its fulfilling all the demands likely to be made upon it by the student or practitioner is that it may not be so clear and lucid to them as it is to neurologists, for of course one versed in any subject is apt to see more in a simple statement than another who has no previous knowledge of it. To students and practitioners who have read other works this production will prove extremely valuable in time of need: to the former just before examination; to the latter in every-day practice.

Tumeurs de l'Ombilic. Par le Dr. FRANCIS VILLAR, Ancien Interne des Hôpitaux de Paris. Avec 7 Photogravures. Paris: J. B. Baillière et Fils. 1886.

CRITICS of specialism and its abuses have often prophesied that some day a surgeon would rise up and take the umbilicus under his special care, and devote all his energies to the treatment of the maladies, real and imaginary, of this square inch of the human frame. The essay before us shows that such a forecast was by no means an impossible exaggeration. Dr. Villar has written a very interesting account of the tumours of the umbilical cicatrix, excluding hernia, and anyone who will read it will be likely to admit that his time has not been misspent. The classification of these tumours is simple and useful. The distinctions between the two kinds of fungous tumours or polyps of the umbilicus met with in infants are clearly drawn. The commoner variety is a mass of granulation tissue arising subsequently to and in connexion with the separation of the cord—a lobulated growth, secreting pus, sometimes curable by caustics, and not containing any special structure. The rarer form is an adenoma, a truly congenital growth developed from the omphalo-mesenteric duct, discharging mucus, and being very thickly studded with tubular glands—a growth only to be cured by excision. Cases of dermoid and sebaceous cysts, of fibroma, papilloma, myxoma, and sarcoma—all of them very rare—are recorded, and a large part of the essay is devoted to a study of cancer. It is shown that primary cancer of the umbilicus is nearly always epithelioma, while secondary cancer is as commonly carcinoma. The primary form has a marked tendency to invade the peritoneum and spread in a mushroom-like mass over the inner surface of the abdominal wall. On the other hand, carcinoma of the abdominal wall or of any of the abdominal viscera has a special tendency to infect the umbilicus, so that in any case of cancer of the umbilicus other malignant growths should always be looked for. These and many other interesting and important facts, together with details of diagnosis and treatment, are well discussed, and a bibliography completes the whole. Like many of his countrymen, Dr. Villar is not well acquainted with the medical literature of this country, from which he could have collected additional cases and observations.

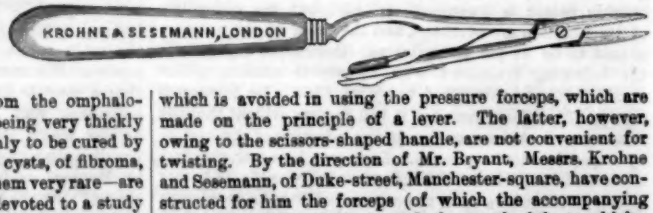
The Asclepiad. No. 14, Vol. IV.

DR. RICHARDSON, writing on the phenomena of Palpitation, with and without intermittency of the Heart and Circulation, believes that all persons who suffer from intermittent pulse have occasional attacks of palpitation, but that some persons have palpitation who are not liable to ntermittent action. Speaking of the causes of palpitation, Dr. Richardson thinks that "the worst mischief of all is the practice of carrying to bed the anxieties and annoyances of the labours of the day." He believes that more than half the cases of palpitation of the heart occur from this one mistaken and foolish practice. The practice is, we grant, foolish and mistaken, but it should not be forgotten that the practice itself may be due to disorder of the chief organ of mind. The clinical aspects and relations of palpitation and intermittency, as studied with the sphygmograph and cardiograph, are dealt with in a very interesting manner. The article on Winter Palaces of Health and Camps of Health at Home forms the subject of some editorial observations on another page of our present issue. "John Arbuthnott, M.D., F.R.S., the Medical Scholar," is the subject of the biography and portrait—an autotype from an oil painting by Jervas, in the possession of the Royal College of Physicians. The fac-simile autograph of John Arbuthnott has been reproduced from the Register of St. Andrews University, where it was inscribed on Sept. 11th, 1696. This number contains the third chapter on "Practical Biometry, or the Measurement of Life in Health and Disease," and treats of the relationship to insurance of life. If we cannot altogether subscribe to the distinctions drawn by Dr. Richardson, we can at least admire his originality in making classes according to particular external characteristics: (*a*) the atheromatous, (*b*) the alcoholic, (*c*) the arcus senilis expressions. The fourth chapter deals with the various temperaments in relation to the measurement of life for insurance.

New Inventions.

BRYANT'S TORSION FORCEPS.

ALMOST any kind of artery forceps may be used for twisting the end of an artery, whether it be spring forceps provided with a spring catch or sliding bolt, or pressure forceps with the usual scissors handle. The spring forceps, however, in whatever manner they may be made to close, are apt to let the artery slip—a contingency



which is avoided in using the pressure forceps, which are made on the principle of a lever. The latter, however, owing to the scissors-shaped handle, are not convenient for twisting. By the direction of Mr. Bryant, Messrs. Krohne and Sesemann, of Duke-street, Manchester-square, have constructed for him the forceps (of which the accompanying woodcut is an illustration) on the lever principle, to which a handle is centrally attached. At the end of the lever is placed a bolt, which is readily governed by the thumb for opening and closing the forceps. The handle permits of easy rotation.

THE LANCET.

LONDON: SATURDAY, MAY 28, 1887.

WE regret that the committee which was appointed by the General Medical Council to consider the best methods of increasing the practical element in medical education should have made a report without taking any evidence from practitioners, pupils, and teachers. If some further time and consideration had been devoted thereto, we are sure that the report would have been more complete and satisfactory, and would have had greater weight with the profession than it can now have. The question of pupilage with a general practitioner is far too important to be dismissed with the mere opinion that the advantage to be derived from personal instruction was of too great value to be altogether sacrificed: an opinion held, without doubt we should suppose, by every member in the profession, and which reads as a truism so obvious that it was surely almost unnecessary to solemnly record it in a report. But what does the committee suggest for its being carried into practical effect? A term of six months spent in personal pupilage is suggested, not necessarily six consecutive months, but six in all, and that the six months should be taken during the long vacation, and after the examinations in anatomy and physiology have been passed. Such a suggestion as this is so very crude that, if a little more consideration had been bestowed upon it, it would never have been put into a report from so important a body as a committee of the General Medical Council. Pupilage is worth something or it is not. If worth nothing, let it pass away, as it is now doing throughout England; it has never existed to any great extent in Scotland. But if it secures a something of importance in medical education, surely the suggestion of six months in long vacations being devoted to it is insufficient. Personal instruction in "the routine of medical life and its accessories" is valuable in proportion to the earliness of the time in the pupil's education that it has taken place. It is the moulding and forming of habits, manners, and modes of observation and thought that should be secured by such routine, as well as the knowledge of common diseases and their treatment, and these must be secured early or not at all. Pupilage, to mean anything of value, must mean a pupilage of at least a year under a practitioner's guidance and tuition, and that year must be the first year of medical study; and this is distinctly recognised by the Royal College of Surgeons of England, which permits a student to begin his professional education as a pupil of a legally qualified surgeon holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. The only objection to an imperative instead of a permissible pupilage is that it must lengthen the time devoted to professional education, and so increase its cost; for we cannot seriously take into consideration as a worthy substitute six odd months in vacations in the latter half of the student's curriculum. Moreover, he only gets two long vacations between his second and his final examinations; and if he is, as he should be at this time, a clinical clerk or dresser to in-patients, he will probably get a freedom from his duties for only a week or ten days consecutively; for hospitals know no long vacations, and even visiting physicians and surgeons must find their substitutes when they take their month's holiday. If a student can afford an extra year, it can be well spent with a good general practitioner, who has patients among all classes, and this is the best way, perhaps, of commencing a professional education; but, at the same time, a knowledge of chemistry, physics, and more especially of the biological sciences, must be secured. These are very important parts of the medical curriculum, and may, along with a routine knowledge of common diseases and their usual remedies, be acquired early.

IN the last number of the *Asclepiad* Dr. B. W. RICHARDSON advocates a great national effort for establishing in our own islands a system of Winter Palaces of Health and of Camps of Health at home. The first part of the idea is not new, for he proposed it in 1865, in a memoir which he then wrote on the Medical History of Bath, but he now adds another suggestion for utilising the high grounds of the country into what he calls "Camps of Health." The argument in favour of this new project is stated in a very simple manner. The library of the writer, a room eighteen feet square, has been kept, he tells us, during the whole of the past winter well ventilated at all times with fresh air warmed to 64° F. What can be thus effected on a small scale can be extended to any required degree; it is all a mere matter of engineering skill, the details of which are well understood and easily mastered. His proposal is to extend the plan by erecting in suitable localities a series of palatial residences which shall include, in a closed square, magnificent grounds covered in with glass, and fitted with playgrounds, tennis courts, subtropical gardens, and everything that can contribute to the health and pleasure of the invalids who require a resort from inclement seasons in a genial and summer climate at their own doors. The proportions are supplied for one of these Palaces of Health on a minor scale, so as to afford one hundred residences in fifty substantially built houses of two storeys surrounding a square of gardens and grounds accessible by four grand entrances. Each of the houses, divided into an upper and a lower flat, would be sixty feet deep from the front, twenty-five feet wide, and fitted with every convenience for the residence of an invalid, with every room and part at an equable and adjustable temperature. The two sets of residences would accommodate at least one hundred invalids comfortably and luxuriantly, with their attendants and friends. On the roofs would be four galleries or terraces, covered in glass and laid out with flowers, each gallery twenty yards wide and about one hundred yards long, in all a promenade of nearly a quarter of a mile. The square, covered at a great height with an arch of glass like the Crystal Palace, would be the inner garden, kept always at an equable temperature, and arranged for exercises of every kind suitable for the sick. Add to the whole a library, a reading-room, a lecture-room, a concert-room or

theatre, a gymnasium, the most approved baths, including the Turkish bath and the swimming-bath, with a pump-room at which the different artificial or imported mineral waters could be obtained, and it must indeed be a fastidious invalid who could not for health's sake spend the months of December, January, February, March, and April in such a Palace of Health. In this palace it is urged there need be no monotomy, nor one whit less of good exercise, than is obtainable at foreign resorts, while the immense advantage would be secured of entire freedom from treacherous winds, and the other accidents of atmospheric variability which the best climate within easy reach of Great Britain fails altogether to secure. How these advantages are to be had is next considered, and it is contended that in the palaces foreshadowed, we could in these days "command climate." In such a palace we could make our own electric suns to shine, if we wished them, by night as well as by day; we could filter the air from every kind of impurity, and by the effect of electric discharges set at defiance fog, cloud, and storm. By the same means we could make the air what we pleased in respect to its physical influence on the life of man and on vegetation. We might even utilise an east wind for the value of the oxygen it contains, whilst we might take out of it its fatal sting, and turn it into any quality of wind we liked so soon as it had entered our territory. We might make it dry or moist, keen or soft, bracing or relaxing, as we wished.

Dr. RICHARDSON still suggests that Bath is the centre in which this advancement should first be established. The climate and position generally are favourable to the experiment, and the history of the city as a health city is very commendable; but most important of all is the flood of heated water from the springs, which now flows away into the Avon, and which would be priceless as a means of helping to sustain the summer climate of the Winter Palace and Garden of Health. There are, however, many other sites in England, in Scotland, and in Ireland, in which Palaces of Health could be constructed on a much grander scale; sites in which valleys of great extent ready for roofing, if we may so say, and for being laid out in a vast expanse into Winter Palaces, wait only the hand of man "to become in all their natural beauties gardens of perpetual summer, with miles of park verdure and pleasance." For Camps of Health at high levels, Dr. RICHARDSON suggests the utilisation of certain of the old Roman encampments which form such striking points in the history of our country. These, he shows, are ready for immediate transference into his design. Into this matter we cannot now enter, but we offer the idea generally as a "practicable ideal" for our readers to con over. It would afford good work for the profession were it realised; but, above all, it would, as its proposer says, be patriotic in its bearing, by encouraging native labour, creating a wholesome diversion, and inaugurating a new era of national progress.

WE have already referred to the means at the disposal of the General Medical Council for maintaining the standard of proficiency to be required from candidates at qualifying examinations, and we pointed out that the Medical Act of 1886 requires the Council to appoint inspectors of examinations for those bodies which were before the passing of the Act legally qualified to grant diplomas in respect of medicine and surgery, or which have since entered into combination with other bodies for this purpose. We stated, moreover, that when, in the absence of such combination, the Council has appointed assistant examiners, these examiners were required to secure at the examinations the maintenance of such standard of proficiency in medicine, surgery, and midwifery as is required from candidates at qualifying examinations. As yet the Council have only appointed examiners in surgery to assist the Society of Apothecaries, and presumably they intend to send to the examinations of the Society the inspectors in medicine and midwifery whom they have recently appointed; it remains, however, a matter of grave doubt whether they have fully complied with the intentions of the Act in adopting this course. The point will probably not be raised at the present time, but it would become of much importance if the Council were at any time to receive from their inspectors a report that the examinations were insufficient. If the Council are satisfied with the accuracy of this report, they must of necessity communicate their views to the Privy Council, who are empowered to deprive the examining body of its right to conduct further qualifying examinations. The question would then undoubtedly be raised whether the Medical Council had themselves fully exercised the powers they possess for securing the maintenance of a standard of proficiency. It is lamentable that the position assumed by the Royal Colleges has created another complete qualification in London; it is some satisfaction, however, to observe that the undesirable element of cheapness will not be held out by the Society of Apothecaries as an inducement to candidates. The Society propose to apply to Parliament for power to increase their fees on the ground that the sum which might be an adequate payment for a licence in one part of the profession was inadequate for a licence in all parts of the profession. The granting of the licence of the Society will therefore we trust, be independent of competition based upon pecuniary considerations. The future alone can show whether the alliance of the Society with the Medical Council will sufficiently enhance the value of the qualification to make it acceptable to the profession.

The appointment of committees, which finally engaged the attention of the Council, gives rise to matter for comment. In their constitution sufficient regard has not been had for the relative population of the profession in the three kingdoms. Both in the Finance and Education Committees England only shares equally with Ireland and with Scotland; and, again, in the strengthening of the Executive Committee an Irish and Scotch representative only were added. The proportion of direct representatives assigned to the three countries must be regarded as some indication of the relative influence which it was intended should be exercised by the different countries in the work of the Council, and certainly in the constitution of the committees England has, therefore, been left somewhat at a disadvantage.

The delay in the publication of the Medical Register was the subject of some discussion at the close of the session. The early appearance of the volume is undoubtedly very desirable, but it deserves to be stated that there is no room for criticism of those who are engaged in its compilation. It is, indeed, but right that we should refer to the

indebtedness of the profession to the Registrar, Mr. W. J. C. MILLER, whose admirable services have contributed in a large degree to the efficiency of the work of the Council.

THE progress made in hygienic researches by the application of bacteriological methods has been nowhere better exemplified than in the investigation of air. Dr. PERCY FRANKLAND has pursued the subject in this country with much profit, and there has lately appeared in the Philosophical Transactions a paper by Professor CARNELLEY, Mr. HALDANE, and Dr. ANDERSON of Dundee, which should be carefully studied by sanitarians. The investigations here described consisted in the analysis of the air of dwellings as regards carbonic acid, organic matter, and micro-organisms, the carbonic acid being estimated by the method of PETTENKOFER, the organic matter by that of CARNELLEY and MACKIE, and the micro-organisms by that of HESSE. As regards dwellings, their inquiry involved a comparison between houses of from one to four rooms and upwards, and the composition of the air within these tenements with that without. As an example we may cite from one of the numerous tables the following figures, which represent the average quantities in one-roomed houses, relatively to those in houses of four rooms and upwards (which are taken as 1): cubic space per person, 0·11; carbonic acid, 2·0; organic matter, 4·4; micro-organisms, 6·7 (bacteria 6·9, moulds 3·0). The carbonic acid, organic matter, and micro-organisms all diminish in quantity as the cubic space per person increases from 100 to about 1000 cubic feet; but beyond this capacity there is a slight increase in these impurities, which is attributed to inadequate ventilation of the larger rooms. An instructive comparison is made of mortality statistics with the composition of the air of these dwellings—the death-rate increasing in proportion to the rise in impurity of the air, there being a very rapid increase in the death-rate among young children, and the mean age at death being very greatly lessened. The death-rate from phthisis is lower in those living in one- and two-roomed houses than in those living in three rooms, but this anomaly is readily explained when the early mortality of the former from other diseases is considered. Thus the death-rate per 10,000 from (1) diarrhœa, acute bronchitis, broncho-pneumonia, and meningitis is—for dwellers in four rooms and upwards 19·6, for those in three rooms 27·6, for those in two rooms 39·7, and those in one room 59·8; from (2) phthisis the rates are respectively 13·0, 27·6, 24·4, and 14·6. The inquiry also showed the effect of impure air in promoting pulmonary disease; and as regards infectious disease the mortality from measles and whooping-cough seemed distinctly connected with the class of house, whilst, contrary to expectation, no such relation held for diphtheria. The memoir also enters fully into the subject of the composition of the air of schools, of mills and factories, and of the Royal Infirmary, Dundee, and proves that the determination of carbonic acid alone is not a sufficient indication of the purity of a sample of air. We can only mention the very exhaustive study of the conditions which influence the excess of organic matter and micro-organisms, and the proofs of the superiority of mechanical over natural ventilation, but may state that the authors give as "standards of purity" the occurrence of 10 vols. of carbonic acid per 10,000 in the air of dwelling rooms, and of 13 vols. per 10,000 in that of schools—or an excess over outside air of 6 vols. in the one case, and 9 vols. in the other. These limits should not be exceeded. Nor should the excess of organic matter within the house over that of the air outside be equivalent to more than 2 vols. oxygen per 1,000,000; and the excess of micro-organisms should not be more than 20 per litre. Of these three classes of impurities, the carbonic acid (in the amounts mostly present) is the least deleterious to health, being compensated for by increased frequency of respirations; but the "organic matter" probably has a great effect in lessening the health and predisposing to disease; whilst micro-organisms, apart from specific infection, may be responsible for broncho-pneumonia, so frequent and fatal a complication of the prevalent bronchial catarrh and other affections. The paper concludes with suggestions of remedies—especially the adoption of mechanical ventilation in the Board schools of Dundee, and improved ventilation by means of open grated windows in landings in block tenements; other recommendations, such as the avoidance of keeping lamps burning at night, the adoption of cleanliness, attention to frequent renewal of air as of more importance than the size of the rooms, and the construction of windows so that they can be freely opened at intervals to allow a good current of air to be sent through the rooms, are such as will commend themselves to everyone.

WE drew attention in our issue of April 30th to the question of the dissemination of infection through the agency of rags, as it has been met with in the United States. In this country the subject has been fully dealt with in the reports of the Medical Officer of the Local Government Board. The report for 1881 contained an account by Dr. PARSONS on the influence of cotton and linen rags in this respect, and there is now issued in pamphlet form[1] an account of the danger of such dissemination by means of woollen rags. These rags come mostly from abroad, being mainly landed at the ports of Goole, Hull, London, and Liverpool, and they largely find their way to the "shoddy" manufacturer, by whom they are ultimately used for weaving into cloth or into "linseys." Pure woollen rags, unless dyed, undergo no process which can be held with certainty to destroy infection; but rags of mixed cotton and wool are exposed either to sulphuric acid, or are treated in a stove in an atmosphere of hydrochloric acid gas in such a way that the cotton fibre is destroyed. But no real trust, as regards disinfection, can be placed in these methods of dealing with the rags. In the process of flock-making various kinds of woollen rags and carpets with a backing of hemp are used. At times exceptionally filthy rags stained with blood and excrement are used, and in some cases hardly any attempt at cleansing or purification is resorted to. On the other hand, an attempt has been made to deal with them effectually by disinfection under steam pressure. Inquiry on a wide scale as to the possibility of mischief resulting to those engaged in the various processes of manufacture to which these rags are subjected brings out certain valuable information. In the first place, the occupation, like others of a dusty character, was found to affect some workers so generally that the illness they suffered from acquired

[1] Eyre and Spottiswoode, East Harding-street, E.C.; A. and C. Black, Edinburgh; Hodges, Figgis, and Co., Dublin.

the definite name of "flock fever." But infection seems rarely to have been brought about. A few cases of small-pox amongst those who had been handling woollen rags in the making of "shoddy" were heard of, but Dr. PARSONS referring to the common belief that woollen articles are more likely to retain infection than cotton or linen ones, shows that this does not apply to the processes of manufacture of these several classes of rags; whereas it is well known how commonly calico rag sorters at paper mills are affected with small-pox. Indeed, the latter articles in the form of sheets and underclothing come into closer contact with the bodies than woollen articles, &c., and are hence more likely to receive infection; and it is the sorters of white rags for the best class of writing papers that suffer most. Still, certain cases of infectious disease were heard of amongst woollen rag sorters, upholsterers, and users of rag waste as manure, which were believed to be due to retained infection in the rags. The precautions suggested are as follows: Every rag-worker should be efficiently vaccinated and revaccinated. Avoidance of dust should be aimed at, especially in the direction of improved cleanliness and ventilation of premises. A moist heat of some 220° F. should be applied to the rags. This process should preferably be carried out in the bale, and the best methods of effecting it have been fully indicated in Dr. PARSONS's report on methods of disinfection in a recent report of the Medical Officer of the Local Government Board.

Annotations.

"Ne quid nimis."

A TEACHING UNIVERSITY IN LONDON.

IT is evident, from the activity displayed by the various bodies affected by the movement in favour of establishing a Teaching University in London, that the crisis in its history is not far off. The Special Committees of the Senate and Convocation of the University of London have recently met and exchanged their views on the proposed reconstitution scheme, so that we shall soon expect to see Convocation summoned for its discussion. Many of the graduates will strongly oppose the formation of Faculties composed of representatives of affiliated colleges, and, even should they be unsuccessful in their resistance, the powers of these Faculties are so limited that they cannot satisfy those who think that teachers should have practical control in a university. The scheme may not be passed by Convocation, or, if passed, it will only make some minor, but in our opinion necessary, changes in the University. It solves neither the general university question for the metropolis nor the special one of degrees for average medical students, as in other centres of medical education. The proposals of the Association for promoting a Teaching University for London must find greater favour with those interested in metropolitan education. A university which aims at providing for the student in all the subjects included in its Faculties the best attainable teaching, with the necessary aids and appliances, which requires attendance on a definite course of teaching as a necessary preliminary to graduation, and which secures to the teacher a direct and adequate representation in its councils and share in its administration, cannot fail to enlist the sympathy of the teachers in the metropolis. University and King's Colleges have now formally agreed by their Councils to petition for powers to form (with any other efficient college in the metropolis) such a university on the lines of the Victoria University, and we understand that, as a result of this decision at University College on the 21st, Lord Kimberley has resigned the office of President of the College. Lord Kimberley is also a member of the Senate of the University of London, and had therefore to choose between his University and his College. Powers will be asked to grant degrees in the Faculties of Arts, Science, and Medicine, and to add other Faculties. The difficulties of the medical degrees question are referred to in the petition, and a union with the Royal Colleges of Physicians and Surgeons of England, with a due recognition of the medical schools of London, is suggested as the proper means for overcoming these difficulties. Meanwhile, the Royal Colleges are engaged in preparing a charter and petition, asking for powers to grant degrees in Medicine only, and have declined to pay any attention to those who deprecate the severance of professional degrees from general academic influences, and think that the conferring of degrees should only be undertaken by a real university. Certainly the present time seems favourable, by a judicious combination and a little mutual forbearance, for the formation of a true metropolitan university.

EXTREME FREQUENCY OF PULSE AFTER PARACENTESIS.

AN interesting case in which extreme frequency of the pulse followed puncture of the abdomen for ascites, is reported and discussed in the *St. Petersburger Medicinische Wochenschrift* by Professor Dehio of Dorpat. The patient was a man aged fifty-six, with cirrhosis of the liver. In addition to a considerable degree of ascites, there was general œdema and an old-standing hernia, but no heart mischief could be detected, and the pulse was 86, regular, and of moderate tension. Immediately after the operation the man felt better and was able to breathe more easily, and a slight rise of the pulse was then noted. The next day the face was pallid, and the patient complained of giddiness and prostration. The radial pulse had become 162, thready, and weaker; the second sound of the heart could scarcely be heard. This condition continued without any great alteration for five days, the pulse rate varying from 180 to 150. No rise of temperature occurred, and the respiration was about 24. At Professor Kobert's suggestion two milligrammes of coronilin were introduced subcutaneously, which was shortly followed by a reduction of the pulse rate to 80. A few hours later, however, it rose again to 182. The next day, without any repetition of the coronilin, and indeed without any assignable cause, the pulse sank to 84, and did not again rise to any remarkable extent. From this time, however, the patient's general condition became worse, and he died eighteen days later. The necropsy showed fatty degeneration of the heart and general diffused arterio-sclerosis. There was some hæmorrhagic pachymeningitis and a good deal of clear fluid in the ventricles of the brain, the cerebral substance being of moderate consistence, without any softening and containing less blood than usual. The cerebellum and medulla were in the same condition. The cause of the extreme frequency of the pulse was evidently not the disease of the heart and vessels, as this still existed at the time of death, or eighteen days after the pulse had resumed its normal rate. It must be looked for in the anæmia of the medulla, which doubtless followed the operation. Dr. Dehio proceeds to discuss the question whether this anæmia affected the heart by stimulating the accelerator (sympathetic) centre or by paralysing the inhibitory (vagus) centre, and strongly inclines to take the latter view, quoting Nothnagel, who, in a recent article, says that when an extreme frequency of pulse is found associated with regularity of the intervals between the beats, a weak cardiac impulse, and an absence of other symptoms, or the existence of such as point to an incomplete emptying of the ventricles

paralysis of the inhibitory apparatus is indicated. Exactly these conditions existed in this case, as shown by its history and the sphygmograms obtained, which were of a hyperdicrotic type. Traube has also described a case of this rare condition. An old man, with phthisis, was unable to sit up in bed from the extreme frequency of pulse produced by the anæmia which the upright posture caused in the medulla, which, according to Traube, induced paralysis of the inhibitory apparatus, "the action of which is more easily suspended than that of the respiratory and vaso-motor centres." Another reason given by Dr. Dehio for the view he takes is that it is hardly possible that stimulation of the accelerator apparatus should have been kept up for so many days without any sign of the centre becoming fatigued, the interval between the pulse beats not having altered at all. The fact was that when the abdomen began to refill the medulla became engorged with blood and the vagus resumed its proper functions. Nothnagel has pointed out the analogy between the sudden loss of regulating power of the vagus, and the sudden loss of consciousness in epilepsy and fainting which is produced by very slight interference with the blood distribution.

HOSPITAL WEEK OF THE JUBILEE YEAR.

THE mere list of speakers who have promised to take part in the public meetings is enough to show how deep is the interest taken in Hospital Sunday. These meetings will be held in various parts of the metropolis. The speakers include Sir Wm. Plowden, K.C.S.I., Mr. Spurgeon, the Bishop of London, Sir Andrew Clark, the Lord Mayor, the Prime Minister, Rev. Dr. Allon, Mr. Henry Irving, the Duke of Argyll, the Duke of Westminster, Mr. Richard Chamberlain, the Dean of Westminster, Cardinal Manning, Lord Randolph Churchill, the Duke of Cambridge, and the Rev. G. S. Reaney. A cause which can command advocates so varied and so distinguished should have great success. The list of places at which the meetings are proposed to be held, with the proposed date and hour of the meeting, will be duly advertised. We urge upon all our readers to do their part to make the meetings effective. When the Prime Minister of England can steal half an hour from his toils to plead the cause of hospitals, and when some of the busiest men in the city can find time to organise such a set of meetings, it is the least that any benevolently disposed person can do to aid in every possible way to make them a success. Many fear that the Jubilee year will interfere with this great collection. This is to pay a poor compliment to the Jubilee, which can have no worthier memorial than the doubling of the sum usually raised for hospitals on Hospital Sunday.

POLYMORPHISM OF THE FUNGUS OF THRUSH.

CULTIVATED in gelatine, M. Andry finds that the fungus of thrush gives rise, at the end of five or six days, to a large number of small secondary masses, white and mammillated, in juxtaposition to the original growth introduced. On agar-agar at a higher temperature the vegetation is more rapid, but the mammillated aspect is less obvious. The multiplication is still more rapid when glycerised agar is employed, and on potato its growth is also successful. In these various cultivations no spores were found, but cells of oval form, of greater or less dimensions, arranged in a chain, in the angles of which secondary cellules may arise in mycelial expansions, altogether similar to yeasts. But sown in bouillon these organisms turn the liquid turbid at the end of two or three days, and a sediment of whitish flakes, consisting of agglomerations and mycellum of cellules—the true oidium albicans,—is found. In wine the mycelial growth flourishes; an acid medium favours their multiplication, which borax prevents. The form of bacterium aceti has not been discovered in these cultures. Thus the pathogenic organism of Muguet develops in two different fashions. In liquid bouillon it throws out profusely mycelial expansions, and is in the heyday of its vigour; it is then a saccharomyces. In a solid medium, on the other hand, it retains its condition of an oidium, being but slightly different from certain fungi; in this state it may be regarded as the spore of which the mycelium has remained in an embryonic state.

PENSIONS TO MEDICAL MEN AND THEIR WIDOWS.

ALL men should insure their lives early. All medical men especially should do so: first, because they should set a good example; secondly, because their lives are a little more precarious than other men's lives. But for all men early life insurance is a good thing. It implies some forethought. It can be done for a moderate sum, and it is a thing well over. We confess to something like shame at the frequent recurrence of painful cases of want of foresight and forethought in medical men who have allowed themselves to live and die without making any provision for those whom they leave behind,—apparently content that they should appeal *in formâ pauperis* to the pity of those who have their own burdens to bear and their own families to provide for. There is something almost mean in this conduct, especially in days when it is comparatively easy to make some provision. It is not for us to indicate or select the particular method. Medical men in London and the neighbourhood are almost without excuse in this matter with the Widows and Orphans Fund to subscribe to. For others there are the multifarious systems of the different offices for life insurance, some of them on very easy and favourable terms. Lastly, there is what is called the Non-forfeiture system advocated by Mr. E. C. Garland of Yeovil, and worked by the Edinburgh Life Office, by which by a certain annual payment a man may receive a certain sum at sixty or at death; and by which, further, in the event of his ceasing to pay premiums at any age, he will still, it appears, receive at sixty a larger sum than he has paid in premiums. Particulars of this system may be obtained in any individual case by application to the secretary, Edinburgh Life Office, 11, King William-street, E.C. But we repeat our contention, that a man who is living contentedly without having made provision for his family in the event of his death is acting discreditably.

MURDER OR HOMICIDE.

THE practice of criminal abortion is a kind of villany the enormity of which we have no wish to minimise. To take away the life of an undeveloped infant, unless it be to save the more important life of the mother, is in itself an inexcusable piece of wickedness. To risk the mother's safety in doing so clearly aggravates the crime, and there are circumstances in which such an offence may even be regarded as murder. It is rather, however, in most cases, one of those misdeeds which lie just on the borderland between homicide and murder, and its exact significance must often be difficult to define. In a case recently tried at Warwick Assizes two persons were sentenced to death, though with a recommendation to mercy, for having caused the death of a young woman by procuring abortion. Here the evidence available seems to have amounted to proof of murder; yet it is, we confess, somewhat difficult for us to reconcile our ideas to such a supposition. Murder implies either a design to kill or the employment against the person of means capable of killing, with a reckless disregard of their worst possible effects. It is, we should say, virtually impossible that two persons desirous of hushing up a scandal by causing abortion should directly contrive the death of a third, the subject of this operation. When we come to the question of reckless procedure, the mere fact of the operation undoubtedly goes far to prove a criminal dis-

regard of consequences, and is in itself highly illegal. Nevertheless, we have still considerable difficulty in accepting the view that this in itself is enough to prove a graver crime than culpable homicide. It is at least doubtful whether some concession should not in such cases be allowed to the criminal on the ground that, while doing wrong, he has blundered through unskilfulness beyond his intention, or even his apprehensions. He goes about his malpractices, it is true, with his eyes open both to its dangers and its illegality, yet he must in his own interest endeavour to prevent the worst consequences. These are, as a rule, not impossible of prevention, whatever the uncertainty and difficulty of arriving at such a result. If it were otherwise, induction of abortion in any case would be impossible. Consequently, the abortionist, bad though he is, must in many cases be excused from such utter recklessness as would render him distinctly guilty of murder. We should remember, too, that the subject of his unscrupulous attempt is usually a consenting party, not a mere victim. These considerations have, doubtless, weighed with the jury in recommending the prisoners above mentioned to mercy; and, though we do not know of any injustice in the sentence, we are disposed to think that they may very fairly be urged as a plea for its commutation.

PATHOGENY OF GASTRIC ULCER.

THE precise pathogeny of chronic ulcer of the stomach is one of those undetermined questions which have led to considerable speculation, with comparatively little profit. The position, form, and nature of the ulcer have done more than any positive demonstration of the vascular lesion to favour the current doctrine of its dependence on arterial blocking. But everyone knows the difficulties in the acceptance of this view, not the least being the comparative frequency of the disease in the female sex, and the great preponderance of cases where the ulcer is solitary and seated on the posterior surface near the lesser curvature. Dr. Decker of Würzburg has the last word on the subject (*Berl. Klin. Wochenschrift*, No. 21), and he advances evidence in support of the initial lesion being traumatic, or rather thermal. Thus, he believes that the contact of hot thickened fluids with the gastric mucosa excites hyperæmia, which becomes localised, and may lead to venous stasis and hæmorrhage in a limited territory, with all the subsequent necrotic changes. He supports his view, not only by reference to the clinical history of cases of gastric ulcer (he points to the great prevalence of gastric ulcer among cooks, who habitually test the flavour of their dishes when very hot), but by two experiments on dogs into whose stomach food heated to 50° C. was introduced. In one of the animals a patch of hyperæmia, with hæmorrhage between the gastric mucosa and muscularis near the lower curvature, was found; in the other, a deep ulcer of characteristic shape and position had been produced.

BOARDING OUT OF PAUPER CHILDREN.

SOME recent statements as to the condition of children boarded out at Denmead by the St. Pancras Board of Guardians seem, at first sight, calculated to discredit that mode of bringing up pauper children. At one place, it was stated, four children were found sleeping in one room with a thatched roof. A woman named Sylvester had six children of her own, two from Mr. Barnardo's Homes, and one from the St. Pancras guardians. These boys were described as sleeping three in a bed, and "covered with festering sores." Four were in a deplorable state, and had no doctor attending them. An old man with six shillings a week had four boys boarding with him—two from Mr. Barnardo's Homes and two from St. Pancras. When visited, the boys were standing at their dinner round a table one eating out of a broken gallipot and another out of a broken basin. The only food which they were seen to have by the visitor consisted of pieces of pork rind and of bread and potatoes. The whole family used one towel, which did not seem to have been washed for two months. These statements have, however, been very largely disputed or refuted. Mr. Barnardo has had the boys from his school brought up to be inspected, and he declares that they are quite well and free from sores, save one boy who has constitutional eczema, and even he is much better than when he went away. The agent from Mr. Barnardo, making a surprise visit on the very night the statements were published, found the beds and clothing clean. All the children appeared to have had ample food. The vicar of Denmead, Mr. Greene, describes the reports as grossly exaggerated, and attributes the eruptions noticed to children affected with itch sent down from St. Pancras. But Mr. Clarke, the medical officer, denies that any child with the slightest indication of disease has left St. Pancras, and his carefulness is vouched for by Mr. Millward, clerk to the St. Pancras Board, in an interview with the representative of the *Pall Mall Gazette*. It seems right to conclude that a system which has been found on the whole to work well should not be condemned on such doubtful statements as have gone the round of the press. But it is evident that the system requires close supervision, either by the guardians themselves or by some one person or number of persons in whose vigilance and wisdom they can place confidence. Mr. Millward spoke favourably of the system, and said the St. Pancras guardians had nine districts in various parts of England to which they sent children to be boarded out.

THE MICROBES OF PNEUMONIA.

PROFESSOR WEICHSELBAUM of Vienna, in the course of a review of the discoveries made concerning the etiology of acute pneumonia (*Centralblatt f. Bacteriolog.*, Nos. 19 and 20), refers to his own researches, which are of much interest. Dealing with material from 129 cases, which comprised not only primary croupous pneumonia, but also lobular and secondary forms, he distinguished four kinds of bacteria. The most common was a diplococcus, mostly of an oval shape, sometimes occurring in small chains, and having a capsule which stained faintly. Its cultures had some resemblance to those of streptococci; and when injected into the pleural cavity of rabbits caused a fatal result in from one to two days, with bilateral lobar or lobular pneumonia, pleuritic exudation, and often also peritonitis and pericarditis. This microbe is identical with Fränkel's pneumococcus, but differs from Friedländer's, which does not affect rabbits, but does affect guinea-pigs. It was found ninety-four times in the 129 cases, seventy-eight times in genuine croupous pneumonia, but also in secondary and lobular pneumonia. A second variety, far less frequently present, was the streptococcus pneumoniæ, distinct from other forms of streptococci, and occurring in secondary (lobar or lobular) pneumonia when the primary disease was excited by a streptococcus. It was also met with in other forms of secondary pneumonia, and even in primary lobar pneumonia, associated or not with the diplococcus. Less frequently still (viz., in nine cases only) did he meet with an organism identical with Friedländer's pneumococcus, which Weichselbaum styles "bacillus pneumoniæ." He found this not merely in lobar croupous pneumonia, but even in lobular pneumonia, and three times in association with the diplococcus pneumoniæ and a streptococcus. Lastly, the staphylococcus pyogenes aureus was found in five cases, either alone or in company with the diplococcus, and always in secondary inflammation. In several observations these various microbes were also detected in the exudation of inflammatory processes complicating the pneumonia—as

pleurisy, pericarditis, peritonitis, meningitis, &c., and once in the blood and splenic pulp. Weichselbaum concludes from these facts that genuine croupous pneumonia is in most cases caused by the diplococcus pneumoniæ; but undoubtedly in a few the bacillus pneumoniæ seems to be the sole agent. Clinically, he observes in a footnote, these latter cases seem to run an exceptionally malignant course. Acute lobular pneumonia, and the pneumonias (lobar or lobular) which are secondary to other infective diseases, may be due to either of the four above-named organisms, either alone or combined. Therefore the pneumonic virus is not a single entity, but, just as in acute inflammations of connective tissue, several kinds of bacteria may be the cause of the morbid process.

LONDON WATER SUPPLY.

THE report of General A. de C. Scott, the water examiner for the metropolis, gives an account of the chemical composition of the different waters, which still contain a large amount of chlorine, and discusses the methods of collecting water adopted by the different companies, mentioning that the Grand Junction and other companies have constructed in the beds of gravel and sand which overlie the London clay, in the bottom of the river valley, open-jointed distributing and collecting conduits, the former being used to convey the river water to the gravel or ballast beds, and the latter placed at a lower level to collect the water after it has passed through the ballast, and convey it to the well of a pumping engine, by which it is lifted into the reservoirs for ordinary filtration and distribution. At Hanbury, near Sunbury, a brick-lined tunnel, 1550 feet in length, has been driven through the clay underlying the gravel, and from the tunnel vertical pipes lead to the base of the gravel, from which pure water flows into the tunnels. The gravel beds in this locality form, General Scott says, a valuable source of supply, the importance of which should be recognised. It must, however, he adds, be borne in mind that this, like all shallow sources of water in porous subsoils, is liable to become fouled by extension of population over the surface; and if houses with a system of cesspools were built on the gravel area adjoining the works of the water companies, the purity of the supply therefrom might become seriously endangered.

ACTION OF HYOSCINE ON THE EYE.

DR. O. WALTER of Dorpat has published a series of observations on the action of hyoscine on the eye. This body produces some toxic effects very similar to those produced by atropine—viz., dryness of the throat and dilatation of the pupils—but, unlike atropine, it causes drowsiness and languor; it also sometimes causes nausea and giddiness. Until lately little has been known of the effects of hyoscine on the eye, but within the last few months two other Dorpat students, working under Professor Kobert's direction, have paid some attention to the subject—one of them, Dr. Sohrt, having published a paper on the general, therapeutic, and physiological effects of hyoscine. Hirschberg and Emmett had, however, remarked the mydriatic action of this subject. Dr. Walter experimented on animals by instilling hyoscine into one eye and atropine into the other, and found that a drop of an exceedingly attenuated solution produced distinct dilatation, acting both on the pupil and on the accommodation much more rapidly than atropine. The dilatation passed off more quickly than that produced by atropine, but the paralysis of accommodation persisted about as long as that produced by an equally strong solution of atropine. No decided effect was remarked on the intra-ocular pressure, but in patients with chronic glaucoma the regular application of hyoscine certainly produced an improvement in the sight and an enlargement of the field of vision. Slight toxic symptoms were produced by two drops of a 1 per cent. solution. The author recommends repeated applications of a weak solution in preference to a single application of a strong one.

THE HEALTH OF THE GERMAN CROWN PRINCE.

THE news that Dr. Morell Mackenzie had been hastily summoned to Potsdam to see the Crown Prince has attracted the attention of English readers to his Imperial Highness's illness, and naturally excited some alarm, which we hope may be groundless. It appears that for some time the Crown Prince has suffered from hoarseness and laryngeal irritation, which a stay at Ems did nothing to mend. A laryngoscopic examination revealed the presence of a growth from one of the vocal cords, and it was feared that it was malignant in nature. Under these circumstances Dr. Morell Mackenzie was summoned to the illustrious patient, and he, to solve all doubts, removed a portion of the growth with laryngeal forceps, and submitted it to Professor Virchow for microscopical examination. We are glad to see it stated that his report was to the effect that the growth is not malignant. This has allayed the grave fears that had been entertained in some quarters.

ALLEGATIONS AGAINST THE HOVE SANATORIUM.

IT is a great pity that persons who evidently do not properly understand the general principles on which infectious hospitals ought to be established should publicly condemn a hospital which, in their own district, has been erected in order to protect the population against infection. But this is what has been done at Hove. We, of course, do not refer to complaints as to such matters as dampness of plaster, ill-fitting doors, &c. These are at times noticeable in new buildings, and where sea-sand is used on walls the former condition is by no means uncommon. Such faults should obviously be remedied; but the work can be done quietly without wholesale condemnation of the hospital. The more important matters complained of are such as, if wrong, cannot easily be remedied, and to these we would draw attention. The alleged defaults, it was stated, had led to the institution being the very reverse of what it should be. First, complaint was made of the distance of one block from another, which rendered the passage of attendants difficult. We cannot assume that an ordinary attendant, properly clothed, could not be expected to pass from one block to another; otherwise how can tradesmen, doctors, and other people who have to go to the hospital face such weather as is supposed to exist in what is admittedly a breezy spot? Apparently it was considered that nurses and attendants should be running to and fro between the ward blocks and the administrative building. But that is precisely what ought to be hindered. A nurse, when told off to her ward duty, should remain in her ward until her time for duty is over, and then, putting on such out-door clothing as may be necessary during cold weather, she should return to the administrative cottage, which is her home. She will thus suffer no more than if she dressed for a walk in the same breezy place. So, also, the food supplies should three times a day be brought in a properly covered apparatus to each ward block by a suitably clothed person. What is wanted is, above all things, to prevent communication between ward blocks containing different infectious fevers, and to keep the several buildings aerially quite distinct. Another objection raised is that the nurses must take their food in the infected wards. They certainly have no need, and the place must be badly administered if they are allowed to do so. A proper administrative building has been provided where the nurses are expected to live when off duty, to eat, and to sleep. Then, again, it is said there are no rooms or conveniences for an attendant in the isola-

tion block. A special room for a nurse is no more needed than in the case of a nurse who is looking after a private case in a house, and, what with the separate rooms and conveniences for nurses in the administrative block, we do not see what more could be wanted. Enough has been said to show how unfortunate this publicity has been. Some details of repair apparently want seeing to; but before such hospital provision is condemned in public again, it would be better that those who criticise it should visit other modern infectious hospitals built on approved systems, and learn what their experience has been.

TRANSPLANTATION OF HUMAN BONE IN A CASE OF UNUNITED FRACTURE.

On March 28th M. A. Poncet of Lyons read a paper before the Académie des Sciences on a case in which he had transplanted a piece of bone for ununited fracture of the tibia. The patient, aged nineteen, had sustained a compound fracture of the tibia about the middle of the shaft thirteen months previously; this had been followed by necrosis. On Jan. 19th half of the first phalanx of the big toe, measuring about one inch in length and half an inch in width (the articular ends having been removed), from the recently amputated limb of a healthy man aged forty-three, was inserted between the fragments after having been soaked in sublimate solution for three minutes. Antiseptic precautions were taken and the graft did well, but at the end of two months the tibia was still movable, and M. Poncet decided to resect the fibula and tibia. It was then found that there had been very little loss of substance on the part of the graft, which was united firmly to the lower fragment of the tibia by fibrous tissue, but was separated by about a quarter of an inch from the upper fragment by weak fibrous material.

PROFESSOR BILLROTH.

WE regret to learn that the distinguished Vienna surgeon is dangerously ill, and that his condition excites the anxious fears of his friends and medical attendants. He is suffering from a severe attack of bronchitis; this in itself would not occasion serious alarm in a man of his age—fifty-eight—and robust nature. Unfortunately, it is complicated with weakness of the heart, which adds to the gravity of his condition. Our Vienna correspondent, however, as will be seen by his letter, printed in another column, mentions the publication of a bulletin which favours the indulgence of a hope of the recovery of the great surgeon—a hope which will be shared by surgeons all over the world.

A MEDICAL PRACTITIONER A CO-RESPONDENT.

ON Saturday last, in the case of Pittis *v.* Pittis and Wiley, in the Divorce Court, we regret to note that a member of our profession was the co-respondent. The respondent, Mrs. Pittis, was the wife of Mr. Richard Roach Pittis, a solicitor and the town clerk of Newport, Isle of Wight. They were married in 1881 and lived happily until a year or two ago. In 1883 Mr. Thomas Ormsby Wiley came to Newport as an assistant to another medical man, and afterwards succeeded him. Mr. Wiley became the medical attendant of Mr. and Mrs. Pittis, who had no children till 1886. It was not till the year 1885 that the petitioner had reason to think that Mr. Wiley's visits to his wife were too frequent and of something more than a professional character, and not indeed till a much later period that he doubted the behaviour of his wife. Then, however, evidence was unmistakable, and when the cause came into court the case against Mr. Wiley was so complete that he did not appear, and no defence was attempted. It was proved that he had taken advantage of his professional position and encouraged an interchange of visits with the respondent for which there was no excuse. These visits were at such times and in such circumstances as to be inconsistent with the innocence of either party. The judge spoke in the highest terms of the conduct and bearing of the petitioner, and in a very different way of the conduct of the medical man. The jury agreed to a verdict without leaving the box, and awarded damages to the amount of £1200, and the judge ruled that the petitioner should have the custody of the child. It is humiliating to think that a medical man should be found in such a position. While it is our part to defend medical men who in the discharge of their duties are exposed to the slander of the malicious and the extortionate, it is not less our duty to denounce in the strongest terms those who do not demean themselves in a manner consistent with the character required in the members of a profession where purity and highmindedness are so essential to the public welfare.

MEMORIAL PORTRAIT OF SIR WILLIAM JENNER, BART., K.C.B., M.D., &c.

NUMEROUS friends and many former pupils of Sir William Jenner have, for some time past, desired that there should be an enduring memorial of one so generally and so highly esteemed, and who has attained to so distinguished a position in his profession. With this object a preliminary meeting has been held, and Sir William Jenner has consented to sit for his portrait to Frank Holl, Esq., R.A., to be presented to Sir William by the subscribers; a replica to be presented to the Royal College of Physicians, and to University College, London.

In order that as many as possible of Sir William Jenner's friends and former pupils may take part in the memorial, it has been decided that any sum, however small, may be subscribed, and that the names only, and not in any case the sum subscribed by each, be published. A committee is in course of formation, and anyone desiring that his name be added thereto should signify the same without delay to one of the following:—Dr. C. J. Hare, 15, Manchester-square, W.; G. D. Pollock, Esq., 36, Grosvenor-street, W., hon. treasurers; Dr. J. Russell Reynolds, 38, Grosvenor-street, W.; Sir Henry Pitman, M.D., 28, Gordon-square, W.C., hon. secretaries, to any one of whom subscriptions may be paid.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—Professor Carl Friedländer, a brief account of whose labours will be found in another column.—Professor J. E. Areschoug, the well-known Swedish botanist, in his seventy-seventh year.—Dr. A. de Waal Malefijt, a distinguished Haarlem surgeon.—Professor Castorani, the Naples ophthalmologist.

THE EDUCATION OF CHEMISTS.

THERE can be no doubt as to the benefits which have accrued from the Pharmacy Acts of 1852 and 1868. And there can be no reasonable objection to an extension of these Acts in the direction of giving power to enlarge the education of chemists, so long as the distinction between it and that of medical men is kept clearly in view. It is vain to charge the Medical Council and eighteen or twenty subordinate bodies with the duty of upholding the standard of medical education if Parliament with its other hand sanctions a *quasi*-medical education in chemists. We trust, therefore, that care will be taken in the Pharmacy Act now before Parliament to give no such sanction, and to eliminate from the curriculum of chemists such subjects as are the proper study of medical men. We have good reason to

believe that the best teachers of pharmacy appreciate the limitation of their duties, and, while giving the clearest instruction as to the nature and character of drugs, most carefully avoid disquisitions on their medical uses and therapeutical properties.

THE "TEAR" OF PUBLIC LIFE.

SURELY the sort of life lived by members of the House of Commons just now is *tear*, not wear. The worry of it all is bad enough, but the wretched squandering of energy in all-night sittings, which has come to be the rule rather than the exception of late, is little, if at all, short of suicidal. Unless there be an entire change of tactics shortly, there will be a hideous roll of mental and physical wrecks to chronicle. The "tear" is already telling very seriously on many valuable lives, and before long the mischief in progress will make itself manifest. We think it in no way beyond our province, as an organ of the profession whose business it is to advise the public on matters of health, to warn those whom it may urgently concern that there is a real and instant peril that, unless something be speedily done to spare Ministers and members of the House of Commons the fearful and prolonged strain to which they are now, and have been for some time past, subjected, there will be a catastrophe which men of all parties and ways of thinking and acting in politics cannot fail to regret.

INNERVATION OF THE PYLORUS.

THE state of the pylorus has been observed under various artificial conditions by M. Dobbert, who has employed bags of caoutchouc filled with air and introduced within the pyloric ring of rabbits; the variations in the movements of the pylorus were written on a kymograph, with which the caoutchouc bag was put in communication by means of tubes and tambours. M. Dobbert finds that the pylorus is in a state of continual tonus, and at the same time may exhibit under certain conditions movements of further contraction and dilatation, apparently induced in a reflex manner. Local anæmia and electrical excitation of the vagus and of the spinal cord at the point of origin of the tenth dorsal pair cause increased tonicity of the pylorus, whilst local asphyxia and electrisation of the upper part of the spinal cord have the opposite relaxing effect. The tonus is sometimes increased, sometimes diminished, by excitation of the splanchnic.

ST. MARY'S HOSPITAL.

ON the 19th inst. Sir E. H. Sieveking was elected Consulting Physician to St. Mary's Hospital, and Dr. J. Braxton Hicks Obstetric Physician. Dr. Lees, the senior out-patient physician, fills the vacancy caused in the staff of in-door physicians. Mr. Edmund Owen was formally re-elected Surgeon to the institution, and Dr. Walter Pearce was appointed Assistant Physician.

PNEUMONIA IN THE HELDER GARRISON.

DR. H. A. JANSEN, a Dutch military surgeon, reports an interesting series of cases of croupous pneumonia occurring during his term of duty at the military hospital of Helder. Though in five years he only saw three cases in private practice, the number admitted into hospital with this affection was forty-seven. The cases came exclusively from two rooms in the barracks, the occupants of the other parts of the building and of the married men's quarters, which were close by, entirely escaping. The climatic influences and the exposure on sentry duty were of course shared by the whole garrison alike; so that it is very difficult to account for the apparently exceptional susceptibility of the occupants of the two rooms, the hygienic and other conditions being at least as satisfactory as in other parts of the barracks. It should be remarked that a large proportion of the cases were far from typical, some of them presenting several of the appearances of enteric fever. As a rule, however, the symptoms were not very severe. Two out of the forty-seven died. In the rare instances in which the pyrexia was very marked antipyrin was given, with satisfactory results. Other cases were treated with an acid mixture, together with brandy, musk, and camphor where there was much prostration.

PROFESSOR HYRTL.

THE illustrious Vienna anatomist, Hyrtl, who has for some time been suffering from cataract, has had the right eye operated on by Prof. Fuchs, apparently with great success. The left eye is also affected, and will shortly have to be operated on. Prof. Hyrtl is seventy-five years of age. He has the sympathy and good wishes of medical men in every country, who have all, probably, whether they are aware of it or not, profited more or less by the excellent use to which he put his organs of vision in his earlier days.

SEA WATER FOR STREET WATERING.

ON the 12th inst. at Bournemouth an important inquiry took place at the instance of the Local Government Board with respect to an application from the Bournemouth Commissioners for sanction to borrow £9000 for works of street watering and sewer flushing. The scheme was opposed by the local Gas and Water Company, no objection being raised by the ratepayers. Evidence in favour of the proposal was given by the Bournemouth surveyor, the borough engineer of Portsmouth, the borough surveyor of Great Yarmouth, the consulting analyst for the county, and Mr. Kinsey-Morgan, medical officer of health for Bournemouth; and a shareholder in, a director of, and the secretary to the Water Company, opposed it. The Local Government Board will shortly come to a decision on the matter; we have frequently supported the suggested use of sea water for such purposes, and cordially hope that the London Board's decision may be in favour of the promoters of the scheme.

THE WIDOWS AND ORPHANS OF MEDICAL MEN.

THE admirable Society for the Relief of Widows and Orphans of Medical Men, whose generous rules leave every medical practitioner in the metropolitan district without excuse for not providing something for his own widow and orphans if need be, and for not lending a helping hand to less fortunate practitioners if there be no such need, will soon have completed a century of useful existence. Next year will be the centenary of its foundation. We are glad to hear that its officers propose to celebrate the event in a manner worthy of the great and good objects of the Society. We shall welcome the occasion, and trust that it will excite much attention on the part of medical men to the subject of provision for widows and orphans.

CHEMISTS AS MEDICAL ADVISERS.

MR. WILLIAM CARTER lately held an inquest on the body of a woman who had died without medical attendance, and with only the advice of a chemist. He said it was a great pity that persons should consult chemists instead of medical men. He said the evil was increasing and it was time something should be done to lessen it. It caused a great number of unnecessary inquests and much expense to the country. This is a serious view of the matter; but it is the least serious one. There can be but little doubt that many such deaths might be obviated by proper medical care and attendance, which can be had in every parish

for nothing if the patient is too poor too pay. The coroner's remarks are opportune at this moment when a Pharmacy Bill needs to be amended in such a way as to preserve a broad distinction between the education of medical men and that of chemists.

GASEOUS RECTAL MEDICATION IN PHTHISIS.

A FRESH series of observations by M. Perret appears to result in conclusions in general harmony with other recent trials of the method. He states that the gaseous injections have no microbicidal action; they can modify the bronchial phenomena and diminish expectoration, also influence nutrition for good, especially in the apyretic forms, like other medicaments, and hence are of value in relieving particular symptoms. The outcome of this appears to be that they are as good as, but no better than, other bronchial remedies.

FOREIGN UNIVERSITY INTELLIGENCE.

Basle.—Dr. M. Gottschau, Professor of Topographical Anatomy, has resigned.

Berlin.—Dr. B. Fraenkel has been raised to the status of Extraordinary Professor lecturing upon laryngology. Dr. Jürgens, first anatomical assistant in the Charité, has been appointed Curator of the Pathological Institute. His post as first assistant will be filled by Dr. O. Israel. Dr. Matthias Schulz, director of the Royal Vaccination Institute, has been appointed to assist Professor R. Koch in giving instruction to all the students in vaccination.

Buda-Pesth.—Dr. O. Pertig has qualified as *privat docent*.

Prague (Bohemian University).—The names of Dr. Schwing and Dr. Bubesca have been selected for the vacancy caused by the death of Professor Streng.

Tübingen.—Dr. Walcher, *privat docent*, has been appointed to the post of Superintendent and chief instructor in the Stuttgart Midwives' School, in place of Dr. Fehling recently appointed Professor of Midwifery at Basle.

THE members of the Society for the Prevention of Hydrophobia and Reform of the Dog Laws are preparing for submission to the Government a comprehensive Bill intended to abrogate all existing laws affecting dogs, and place their hygienic control and general management upon clear and well-defined lines. The co-operation and advice of all interested in this question are invited by the secretary of the Society, but the fact that the Duke of Beaufort is its president, and that several professors of the Royal Veterinary College are on its committee, is sufficient proof that the true interests of dogs are being cared for, as well as the public protection.

WE regret to hear that throughout the county of Lincolnshire petitions are being signed protesting against the proposed pension of £600 to Dr. Palmer, who has for many years acted as medical officer to the County Lunatic Asylum; Gainsborough having taken the initiative, the other boards are following suit. The reason given for the protest is the present depressed condition of agriculture, but it is to be hoped that Dr. Palmer will not be deprived of the reward of his long and faithful services to the county.

WE understand that the restriction which has been hitherto imposed upon the President of the Medical Board at the India Office with respect to practice in the case of sick officers or *employés* of the Indian Government on the active list has now been withdrawn by the Secretary of State for India in Council, this decision having been officially communicated to Sir Joseph Fayrer in a letter bearing date May 23rd.

THE charges of criminally assaulting two female patients, brought against Mr. Ralph Hodgson, a medical practitioner of Lewisham, were investigated at the Central Criminal Court on the 24th and 25th inst. In the first case the jury returned a verdict of not guilty, a decision which was received with applause; and in the second, no evidence being offered, a formal verdict of acquittal was recorded. We congratulate Mr. Hodgson on having succeeded in vindicating his character from a charge which of all accusations is the most difficult to disprove, and most fatal to those against whom it is made.

THE death of Mr. H. F. Gisborne is announced as having occurred, in his seventy-ninth year, at his residence in Derby on the 25th inst. The deceased was a justice of the peace for the county and borough, and consulting surgeon to the Derbyshire General Infirmary. For upwards of fifty years Mr. Gisborne was intimately associated with public affairs in Derby, and was the ninth member of his family who, during the last 200 years, had filled the civic chair.

THE Cavendish Lecture will be delivered at the West London Hospital on Friday, June 3rd, at 8.30 P.M., by Sir Andrew Clark, the subject being, "On a frequently successful and speedy Method of treating Hay Fever."

THE dignity of Knight Commander of St. Michael and St. George has been conferred on James Hector, M.D., Director of Geological Surveys and Curator of the Colonial Museum for the Colony of New Zealand.

MR. F. BOWREMAN JESSETT, F.R.C.S. Eng., has been elected one of the vice-presidents of the Surgical Section of the International Medical Congress to be held at Washington in September next.

MR. EDGAR M. CROOKSHANK, M.B., has been appointed Lecturer on Bacteriology at King's College, London.

THE LONDON HOSPITAL.

LAST Monday the first lecture of a course on Chemical Pathology, arranged to meet the requirements of fourth year's students, or those who have recently qualified, was given at the London Hospital by Dr. Ralfe. The lecture, which was introductory to the course, dealt with the Relations of Humoral Pathology to Therapeutics. The history of humoral pathology was traced back to the teachings of Galen, and the domination of the idea of black and yellow bile, and their respective influence on the fluids of the body. The general distrust of the Galenic doctrines, or, rather, disgust at their dogmatism, was then alluded to as setting in at the end of the fifteenth century, as preparing the way for the acceptance of the teaching of the iatro-chemical school in the sixteenth century. The rise of the two great schools—the anatomical and the chemical—was then described; how at first there was a hearty union between them, and great anatomists like Sylvius, Willis, and Vieussens, who were also great chemists; how the schools became rivals, and at last deadly enemies. It was interesting to observe, said the lecturer, that the more speculative school—the chemical—was from the first associated with Germany, whilst the more practical—the anatomical—found its chief adherents among the Latin races. He defended the iatro-chemical school against the charges brought against it. The real cause of its failure was its being unable to verify its facts, neither chemistry nor physics being sufficiently advanced to render assistance. Having drawn attention to the importance of applying chemical analysis to animal physiology, the iatro-chemists could do no more than wait till chemistry was sufficiently

advanced to afford further assistance. Although pathological chemistry was eclipsed for more than a century and a half, it did not die. It was fortunately preserved by the Dutch School of Medicine, which during the whole of the eighteenth century exercised a potent influence over medical thought. It was this school that first made pathological anatomy a science, and took the anatomist from the dissecting-room to the deadhouse. Dr. Cullen, who was a pupil of Boerhaave's at Leyden, was next to see that scientific chemistry, advanced as it was by that time, might play the same part to pathology that anatomy was then doing, and from that time chemistry, no longer attempting to dominate medicine with its speculative views, consented to work as a servant, and chemical pathology has, in consequence, become a recognised science based on experimental facts. "*Chymia egregia ancilla medicinæ, non alia pejor domina.*" One great result of Cullen's teaching was the creation of a school of medicine at Edinburgh, which soon distanced its Dutch rival, and became at the commencement of the century the leading school of medicine in Europe. Dr. Ralfe then proceeded to enumerate the chief results obtained by this union of scientific chemistry with practical medicine during the present century, and remarked that everything was tending to a new alliance with the anatomical school, to unite in work for the common good. After paying a tribute to the work done by Prout, Golding Bird, Bence Jones, and others, the lecturer eulogised Dr. Garrod as the Nestor among the humoral pathologists of the day. Chemical pathology owed him much, not only for the brilliant discoveries he had made and their practical utility, but for the cautious manner and sobriety with which he had advanced his generalisations, and which had conferred such credit on the young and rising school.

ST. GEORGE'S HOSPITAL.

A VERY successful gathering took place at this Hospital on the occasion of the opening of the new physiological laboratories and class room. On May 18th, in addition to the present students, there was a very large attendance of old St. George's men and other friends of the hospital. An interesting address was delivered by Mr. G. D. Pollock, in which he reviewed the various changes and improvements he had witnessed, both in the medical profession generally and in the hospital in particular, during the past fifty years. Congratulating the medical school on its good fortune in having secured the services of Dr. Delépine as lecturer and general superintendent of the physiological department, Mr. Pollock referred at length to some remarks which Dr. Delépine had made to him with regard to this department, over which he now presides: "For a number of years physiological facts have been taught in the form of dogma, the student remaining in ignorance of the simplest methods of demonstrating facts. Hence the facts and the theories arising from them were received on the mere authority of the discoverer, this being taken as equivalent to actual demonstration, and the result was but too often erroneous teaching." Great stress was laid by Dr. Delépine upon the fact that this new laboratory is so fitted and arranged that any student with proper industry can work out for himself all questions which fall within the curriculum, and that it is independent work of this kind which is so profitable. Mr. Pollock then proceeded to give a sketch of the hospital as it was when he entered the Medical School, and dwelt, amongst other advantages which the present student enjoys, upon the fact that house-surgeons, dressers, &c., held their appointments free of charge, an inestimable boon in the case of the house-surgeon or house-physician, who holds his appointment at St. George's for twelve months. Mr. Pollock then introduced the question of increasing the number of house-physicians and house-surgeons in order to meet the daily augmenting work of the hospital. Such a plan for adding to the resident staff would, Mr. Pollock said, receive his hearty support, as conducing alike to the welfare of the patients and the better education of those who are to form the rank and file of the medical profession. Mr. Pollock concluded an instructive address with a few words of advice to the students, and a graceful compliment to the dean of the school, Dr. Wadham. Those present, at the request of the dean, then proceeded to inspect the new laboratory, where Dr. Delépine made a few physiological experiments with a view of showing the capabilities of the building for the purpose for which it was intended. A subsequent adjournment to the museum for refreshments concluded the meeting, which had been agreeable and satisfactory to all concerned.

MEDICAL ATTENDANCE ORGANISATION COMMITTEE.

AT a meeting of the above committee, held on Tuesday, May 24th, the following resolutions were carried unanimously:—

1. "That it is desirable that hospitals should enter into arrangements for co-operation with provident dispensaries in their neighbourhoods, and that a subcommittee be appointed to prepare a scheme defining the relations that should subsist between them." The following were appointed as a sub-committee to consider this resolution: Sir Spencer Wells, Drs. W. Ord, Gilbart Smith, W. E. Steavenson, J. Grey Glover, Walter Smith, F. H. Alderson, and J. C. Steele; Mr. W. G. Dickenson, Mr. W. Bousfield, Lieut.-Col. Montefiore, and Mr. W. G. Bunn (secretary).

2. "That the governing bodies of hospitals be requested to consider the advisability of attaching a provident branch to the out-patient departments." This resolution having been passed, it was also resolved that the chairman (Sir Spencer Wells) should select a subcommittee to consider the best means to carry it out.

The next meeting of the committee will be held on Tuesday, June 14th.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Jarrow Urban District.—Under the Jarrow Improvement Act 140 notifications of infectious disease were heard of during the past year, and much useful work was done by excluding scholars from houses infected. One section of the Act contains a useful prohibition. It enacts that no person shall cease to occupy any house within six weeks of the occurrence of a case of infectious disease therein without having the house disinfected to the satisfaction of a medical practitioner, or intimating the nature of the disease to the owner; and breach of this provision led to the infliction of a fine during the year. Typhus was twice imported, but it did not spread, and Dr. Munro attributes the low "fever" death-rate of the town, even in such a period of privation as has been gone through, to the considerable sanitary improvements which have been brought about. Amongst the more prominent additions to the sanitary defences of Jarrow is the completion of an excellent hospital for infectious diseases. During a previous year it was found that the bye-laws as to drainage for new buildings had not been observed, and the method of dealing with such cases gave rise to much discussion. As a matter of fact, in any town where much building is going on it is nearly the work of a single officer to see that building bye-laws are duly observed, for constant supervision during the process of building is imperatively necessary.

Bristol Urban District.—Dr. D. S. Davies, who during the last six months of 1886 held the post of medical officer of health in succession to his father, gives an excellent summary in his annual report of the various sanitary circumstances existing in Bristol. On many points details are given which must be of great local value. As regards the water-supply, it is stated to be, in point of quality, above suspicion; but it is to be regretted, in connexion with a special charge which the company have the power to make as to each closet flushing apparatus, that the majority of the out-door closets throughout the city are dependent on hand flushing. As regards the sewers, Bristol is a city without sewer ventilation, and Dr. Davies supports our contention that roadway ventilators are injurious. Much is being done in the direction of efficient house drainage, but additional

powers are needed, under bye-laws, as to securing proper foundations for houses. In one respect we regret to see so little advance in Bristol. Scarlet fever caused no less than eighty-nine deaths last year—a fatality which indicates a vast amount of sickness. There is a fever hospital, and yet the admissions numbered nine only. It is difficult to understand the grounds on which this hospital is administered as it is, for one of the regulations for admission not only reminds patients that a charge not exceeding £1 a week will be demanded of each such patient, but it goes on to add that this payment "will be enforced" in all cases where such patient or person is able to pay. Anything more calculated to prevent the use of a hospital built and maintained at the cost of the rates, professedly for the public protection, it is almost impossible to conceive, and it is, we assume, largely owing to this statement as to the enforced payment of a comparatively paltry sum of money that so little is done by way of isolation to stay the spread of a disease so fatal and so costly to the community suffering from it. Happily, authorities generally understand that the public interests demand isolation at almost any reasonable cost, and the question of procuring repayment is rarely entertained to any noteworthy extent.

Spilsby Rural District.—In connexion with an account of the infectious diseases which have come under notice during the past year, Dr. F. J. Walker refers to the advantages of notification, isolation, and disinfection. As regards isolation, he believes that the plan hitherto adopted, of taking cottages as hospitals as occasion may require, will still answer the purposes of the district; and it would appear that disinfection is limited to such work as can be carried out in the absence of an efficient disinfecting apparatus. The general description of the several localities in the district affords indication of action needed in the direction of providing proper water, sewers, privies, &c., and of the want of action as regards houses that are a nuisance from dampness or otherwise. The death-rate for 1886 was 17·45 per 1000.

Bedford Rural District.—Dr. Prior calculates the death-rate of this district at 16·27 per 1000 for 1886, and he then proceeds to give some account of the infectious diseases that have prevailed during the year. Small-pox has been held at bay during ten years, and it is earnestly hoped that, even with the risk of fresh importation, this disease may soon become extinct in the district. Diphtheria was to some extent prevalent in Kempston, and owing to the absence of a hospital belonging to the sanitary authority one case was isolated in the Poor-law small-pox building in the work-house grounds. Dr. Prior presses upon the authorities in the Bedford Union the necessity for some central hospital on the block system, and adapted to serve the requirements of their districts.

Wem Rural District.—Dr. Giles reports that scarlet fever was widely prevalent in the district during the last six months of 1886, and he refers to the need for notification of such diseases. He points to the strange anomaly that if a farmer can trace the loss of one of his pigs to the fact that a neighbour has failed to give notice of the existence of infectious disease on his premises the latter is subject to a heavy fine, but if the farmer only loses one of his children from a similar cause there is no penalty. In Wem itself good results have followed from the new arrangements as to the removal of town refuse. In Shawbury the need for a proper supply of water is pressing. Throughout the district the death-rate was 18·9 per 1000.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5701 births and 3594 deaths were registered during the week ending May 21st. The annual rate of mortality in these towns, which had been 20·9 and 19·7 per 1000 in the preceding two weeks, rose again last week to 20·3. During the first seven weeks of the current quarter the death-rate in these towns averaged 20·6 per 1000, and was 1·9 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 12·3 in Wolverhampton, 14·2 in Leicester, 14·9 in Sunderland, and 15·2 in Halifax. The rates in the other towns ranged upwards to 28·1 in Preston, 28·8 in Oldham, 29·2 in Norwich, and 31·1 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 548 and 500 in the preceding two weeks, rose again last week to 532; they included 237 from measles, 158 from whooping-cough, 48 from scarlet fever, 47 from diarrhœa, 22 from diphtheria, 19 from "fever" (principally enteric), and only 1 from small-pox. No death from any of these zymotic diseases was registered during the week in Wolverhampton; whereas they caused the highest death-rates in Newcastle-upon-Tyne, Norwich, Salford, and Oldham. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Manchester, Oldham, Salford, and Norwich; whooping-cough in Birmingham, Oldham, and Blackburn; and scarlet fever in Preston, Salford, Halifax, and Blackburn. The 22 deaths from diphtheria in the twenty-eight towns included 12 in London, 2 in Liverpool, 2 in Salford, and 2 in Oldham. Small-pox caused 1 death in London, but not one in any of the twenty-seven large provincial towns. Only 5 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; no new case was admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 348 and 294 in the preceding two weeks, further declined last week to 289, and were 25 below the corrected average. The causes of 79, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bradford, Cardiff, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Hull, Halifax, Sheffield, and Huddersfield.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 31·3, 36·6, and 24·4 per 1000 in the preceding three weeks, rose again to 25·4 in the week ending May 21st. During the first seven weeks of the current quarter the death-rate in the city averaged 30·4 per 1000, the mean rate during the same period being but 18·5 in London and 19·5 in Edinburgh. The 172 deaths in Dublin last week showed an increase of 7 upon the number in the previous week; they included 8 which were referred to measles, 6 to whooping-cough, 5 to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 1 to diarrhœa, and not one either to small-pox or diphtheria. Thus 24 deaths resulted from these principal zymotic diseases, against 19 and 20 in the preceding two weeks; they were equal to an annual rate of 3·5 per 1000, the rates from the same diseases being 2·5 in London and 2·4 in Edinburgh. The fatal cases of measles, which had been 11, 6, and 9 in the preceding three weeks, were 8 last week. The deaths from scarlet fever, whooping-cough, and "fever," on the other hand, showed an increase upon recent weekly numbers. The deaths of infants corresponded with the number in the previous week, while those of elderly persons showed a further decline. Three inquest cases and 5 deaths from violence were registered; and 51, or nearly a third, of the deaths occurred in public institutions. The causes of 17, or nearly 10 per cent., of the deaths registered during the week were not certified.

ZYMOTIC DISEASE IN AUSTRIAN TOWNS.

We recently called attention to the high rates of mortality that prevailed during last year in the Austrian towns, having a population exceeding 10,000 persons. The forty-nine towns embraced by this return had an estimated aggregate population of rather more than two millions and a half in the middle of 1886; and the mean death-rate in the year was equal to 31·7 per 1000, against 20·9, which was the mean rate in the twenty-eight large English towns, with an estimated population of more than nine millions. Thus the average population of the forty-nine Austrian towns was little more than 50,000, while the English towns had a mean population more than six times as great. A comparison of the mortality from the principal zymotic diseases in the Austrian and English towns throws considerable light upon this marked difference of mortality. The deaths from the principal diseases of this class caused a mean death-rate of 5·11 per 1000 in the Austrian towns, whereas in the English towns it was but 2·88. Small-pox caused 1015 deaths in the Austrian towns, equal to 0·38 per 1000, while only 70 deaths from this disease occurred in the twenty-eight English towns, giving a rate of but 0·01. The rates from measles and scarlet fever in the Austrian towns differed but slightly from the rates in the

English towns; while that from "fever" was 0·33, against 0·23 in the English towns. The death-rate from whooping-cough, however, which was 0·53 in the English towns, did not exceed 0·21 in the Austrian towns. Diphtheria and croup caused 2233 deaths in the Austrian towns, equal to a rate of 0·83, which was more than five times the rate in the English towns. It should be borne in mind that in the disease classification now used in England croup is not classed with diphtheria, but, after due allowance for this cause of difference, diphtheria mortality is undoubtedly very much greater in Austria than in England. In Trieste and in sixteen other smaller towns the death-rate from diphtheria in 1886 exceeded 1 per 1000; and in a smaller town, Drohobncz, with a population of 18,896, the death-rate from this disease exceeded 3 per 1000. The mortality from diarrhœal diseases also accounted for a considerable proportion of the excess of mortality in the Austrian towns. The mortality from these diseases, which did not exceed 1·16 per 1000 in the English towns, was equal to 2·62 in the Austrian towns: it should be noted that 0·22 was referred to cholera; but if this be excluded, the diarrhœal rate in Austria was more than double the rate in the English towns. The Austrian return also shows a remarkable excess of mortality from inflammatory diseases of the respiratory organs and from phthisis, the rates from these diseases being equal to 3·75 and 6·38 per 1000 respectively. The Registrar-General's Annual Summary does not give similar information for any of the large English towns except for London, where the rate from diseases of the respiratory organs last year was 4·41 and that from phthisis 2·01 per 1000 respectively. Thus inflammatory diseases of the lungs and phthisis caused a death-rate in the Austrian towns greater by 3·71 per 1000 than the rate in London. The return also affords conclusive evidence of a marked excess of infant mortality. It may therefore be safely assumed that the startling excess of mortality last year in the Austrian cities was mainly due to high rates of zymotic and infant mortality, and to excessive fatality of diseases of the respiratory organs and of phthisis, thus affording conclusive evidence that the excess may be attributed to defective sanitary condition, such as prevailed in most of our largest English towns less than half a century ago.

Correspondence.

"Audi alteram partem."

THE COLLEGE OF SURGEONS' EXAMINATIONS.

To the Editors of THE LANCET.

SIRS,—The very large proportion of failures at the examination in Surgery at the Royal College of Surgeons is too important a matter to be allowed to drop from the notice of the profession, and it is to be hoped that the prominence you have given to it will be the means of eliciting the opinions of those best able to judge. I do not propose to ask whether the fault lies at the door of the students, of their teachers, or of their examiners, although it is doubtful if the teaching of surgery were ever carried out with greater care and thoroughness than now, while the students of to-day are certainly not less industrious than their predecessors. Having often availed myself of the privilege of Fellows of the College to be present at the surgical examination, I will ask to be allowed to mention one or two features of the examination which, I believe, account in some measure for the distressing proportion of failures.

I think all examinees will admit that *vivâ voce* examination is more trying and embarrassing to a candidate than is a written paper, and the fact that the paper only carries one-third of the total of marks at the College of Surgeons makes this examination an unusually severe test. I am aware that very strong arguments are urged in support of the present system, and I do not suggest that it should be altered; but I submit that every care should be taken to diminish the evil of the system, and to eliminate from the *vivâ voce* examination the elements of chance which all must admit are very prone to characterise it. Special pains ought to be taken to put a candidate at his ease by commencing the examination with some simple questions. It is obvious that a "time limit" introduces a special difficulty, and it seems to be a pity that there are no means by which the examiners can prolong the examination of slow students or shorten that of obviously quick and proficient ones.

Another difficulty that candidates have to contend with is the low scale of marking. It must often be impossible to decide whether a given candidate should have two or three or four out of a possible five, and for the simple reason that twenty-five or thirty-five out of fifty really represent the value of his answers. This is a matter that might be easily altered, and I cannot help thinking that it would tend to make the examination more satisfactory. But, Sirs, these are, after all, minor points, and I would submit that the main requisite is, as you mention in your article, greater attention to the art of examining. It should be more generally recognised than it is that it is not an easy matter to examine well and so to frame questions as to at once show the examinee their purport. So far as my experience goes, the main complaint of candidates at the College of Surgeons is that they mistake or quite fail to understand the meaning of examiners' questions, and I am confident that there is much that is just in this complaint. If examiners would prepare for the examination with a tithe of the care they demand of the students, I should confidently anticipate a marked diminution in the percentage of "plucks," and a fair approximation of the result of the examination to the actual state of the students' knowledge.

I should like to add, in reference to Mr. Heath's letter, that his statement that the standard of the examination has been lowered of late is quite contrary to the general impression in metropolitan medical schools, and is quite opposed to the confident opinion of at least one of his colleagues in the Court. Mr. Heath's explanation of the large percentage of failures in the recent examinations is hardly satisfactory, for, of course, the number of reappearances is dependent upon the number of men "plucked" at previous examinations.

I am, Sirs, your obedient servant,

May 24th, 1887. A. PEARCE GOULD.

To the Editors of THE LANCET.

SIRS,—Your leader of May 14th has, I am sure, been read with pleasure by many who are interested in the welfare of the College of Surgeons, and especially by those who have had a practical experience of its late final examinations. Having undergone this experience on four occasions (the fourth only being a "lucky" one), a few remarks from a candidate's point of view may be of service, if taken together with the letter from the pen of Mr. Christopher Heath, contained in THE LANCET of last week. Credited with two years profitably spent under the old apprentice system at a county infirmary—twenty-one months of provincial and fifteen months of metropolitan hospital attendance on the one hand, against three rejections at the Royal College of Surgeons' final examination on the other,—I have, needless to say, long since come to the conclusion with Mr. Heath, that at this examination "one man may be lucky, &c."; but many will not agree with him when he goes on to say that he fails to see, "human nature being as it is, how it is to be avoided." Again, Mr. Heath writes that "a good deal has been done to improve the College of Surgeons' examination, with the object of gaining less uncertainty, and even in the way of diminished stringency." Yet in the preceding paragraph he tells us that (notwithstanding these improvements) the rate of "pluck" was in January 50 per cent., and in April 51·6 per cent.—a percentage which he attributes to an unusually large number of "reappearances" in January and April. But why should a man who has the misfortune to be referred, and has spent that term of reference in honest work at his hospital, be more likely to fail than one who has never experienced the examination, especially when a second appearance is so common? The obvious conclusion to be drawn from these statements seems to be that, whatever improvements have been made, they have not remedied the evil. Your leader above referred to, I believe, rightly attributes the uncertain results of these examinations to the "comparatively high value set upon the oral examinations," and especially to the fact that the "personal equation plays a prominent part" in the result. To this may be added the different standards which exist at the various tables, and the fact that in the clinical examination one candidate may be given six or seven or even nine cases to diagnose, whilst

another is kept during the same time at two. He who makes a correct diagnosis in four out of seven cases has an advantage over his more unfortunate fellow-candidate who succeeds only in one of two cases. When there is more uniformity, not only in the number of clinical cases allotted to each candidate, but also as regards the nature of the questions in the oral examination, and above all in the method of marking in that department, then, and not till then, may we expect uniform results. By all means let a high standard of proficiency be maintained, but if this can only be done by the sacrifice of justice, the sooner means are taken to remove what is becoming a cause of reproach to the College the better, not only for the College, but for all who have the honour to hold its diploma.

I am, Sirs, your obedient servant,

May, 1887. M.R.C.S.

ON THE ADMINISTRATION OF CARBONATE OF LIME AS A MEANS OF ARRESTING THE GROWTH OF CANCEROUS TUMOURS.

To the Editors of THE LANCET.

SIRS,—Dr. Hood's interesting paper in THE LANCET of May 7th encourages me to communicate some details of a case under my own observation which, I think, are to a great extent corroborative of his testimony as to the probable value of lime in cancer.

Rather more than four years ago, my late partner, Dr. Wilson Iles, performed an amputation of the left breast for scirrhus of unusually rapid growth. The patient, an unmarried lady aged forty-two, was stout and of florid complexion. I was not present at the operation, but I chanced to look in just as the tumour was being examined, and although I had no reason at that time for taking special notice of the matter, I distinctly remember the characteristic "apinoid" section as the mass was laid open. A preparation of this was made, but it has unfortunately been mislaid or lost. I discovered, however, amongst Dr. Iles' microscopic slides one which exhibits some large diptychal cells, which, if I am not mistaken, came from the same specimen. Not the least doubt, as far as I know, was entertained as to the nature of the tumour, but I had no personal connexion with the case until two years later, when I was consulted by the patient, after long delay and hesitation on her part, about the other breast. This presented a tense, incompressible, lobulated enlargement at the lower and outer part, deeply attached, the skin partially adherent and the nipple retracted, with dilatation of the superficial veins and induration of the axillary glands. There was no ulceration and no pronounced constitutional cachexia, but the expression was careworn and anxious. She complained of acute lancinating pain, radiating from the nipple, and it was only to obtain such temporary relief from this as would allow her to sleep at night that she appealed to me, since she declared most positively that nothing would induce her even to listen to the suggestion of another operation. Neither she nor I doubted for a moment that the cancer had recurred, though from the increased rapidity of its growth, as well as from certain sensations elicited by palpation, I was led to suspect that it was rather of an encephaloid than a scirrhous character. I prescribed a little chloral and sundry anodyne applications, which were varied from time to time, being of little or no effect. For several months I had no conversation with the patient, but I judged from her physiognomy that the disease was making its usual hideous progress. Shortly after this, at a meeting of the West Herts Medical Association, I heard from Dr. Hood of the calcined oyster-shells. Greatly impressed with the desirability of affording so simple and innocuous an agent a trial, I sought out the lady, and, disregarding her prohibition ever to mention the subject, I told her that there was a remedy which might cure her if she would steadily persevere with it for at least a year, which might fail, but which could not possibly in either event do her any material harm. Obtaining her promise to take this regularly without further question, I supplied her with a quantity of dried carbonate of lime, adding thereto 2½ per cent. of the phosphate, to imitate the product of the shells as nearly as possible. I have since been told by Professor Attfield that the true proportion should have been about 1 per cent. Of this she was to take as much as would lie heaped up on a sixpence three times daily, in a dessertspoonful of milk; stirred up in a larger quantity of fluid, a great part of the powder settles before it can reach the lips, and is apt to be overlooked at the bottom of the cup, while a dessert-spoon is introduced bodily into the mouth and the milk hides the disagreeable appearance of the lime. Last week I examined the breast for the second time. The lime has been administered now for nineteen months, with very rare omission of the daily doses. During that time I have purposely avoided any allusion to the matter, and have congratulated myself on the patient's own reticence. But I have remarked that her countenance has been more placid and content during the past year, and that she has long since ceased to write to me for soothing lotions or liniments. The growth of the tumour is undoubtedly arrested. I do not like to say positively that its bulk is diminished, because I took no actual measurements, and two years is a long time to retain a mental impression which may be relied upon for comparison, but I am decidedly of opinion that it is smaller. Whether this and the result generally proceed from simple mechanical diminution of vascularity, or more remotely by alteration of nutrient innervation, I do not pretend to know; but there is certainly a healthier aspect of all the surrounding tissues. The implication of the skin and retraction of nipple still persist, of course, but no tenderness remains, or the slightest appearance of any proneness to ulceration. I should add that there is no apparent evidence of calcification.

It is somewhat curious that burnt and powdered oyster-shells are held in great estimation as a remedy for various ailments and injuries in many parts of the world. Certain tribes of South American Indians make pills of this substance, which they swallow as a preventive of hunger on long journeys, and it was thought at one time, like chopped-up hair, to augment the sustaining virtues of pemmican.

I am, Sirs, yours truly,

Watford, May 14th, 1887. ARTHUR STRADLING, M.R.C.S.

THE TREATMENT OF RINGWORM.

To the Editors of THE LANCET.

SIRS,—During the early part of my medical career, I served the time-honoured apprenticeship of five years. The family consisted of the usual number of adults and two little children. These children were unfortunate enough to catch ringworm of the scalp (nobody knew how), and notwithstanding the application of every known or suggested remedy, they managed to keep the disease for nearly three years. It was with peculiar pleasure, derived from old reminiscences and experience, that I read your recent leading article on the subject, which so accurately detailed all the troubles incident upon that nasty disease. Now the nature of the disease is well known, and you will think I make a bold assertion when I say that the disease is to be cured with one application, and without the unsightly shaven head.

In the first place, the remedy must be in the hands of the medical attendant alone; secondly, procure a rough brush of the prescribed pattern, best represented by a penny gum brush with the bristles cut very short; then take a sufficient quantity of pure glacial carbolic, warm and liquefy it in a watch glass, and then rub it into the roots of the hair until all is thoroughly touched and no further application is necessary; but the head may be washed from time to time, when necessary, with a lotion of sulphurous acid. The principle is to destroy the spores of the fungi which cause the disease. Have clothes disinfected.

I am, Sirs, yours truly,

Leamington, May, 1887. F. E. WILKINSON, M.D.

RANK OF MEDICAL OFFICERS IN THE ARMY.

To the Editors of THE LANCET.

SIRS,—Although the subject of the rank of medical officers in the army has been lately well ventilated in your columns, perhaps you will kindly let me trespass very briefly on your space to endorse most thoroughly the views so clearly and tersely put forward last week by "Brigade Surgeon." I have recently had opportunities of discussing the question of honorary rank with many senior officers of the department, and I am glad, for our credit's sake, to find that one and all scout the notion of purely military titles being thrust

on us. Speaking, then, for many of my brother officers, I say, we do *not* want to be captains and colonels; we do *not* want to sink our profession by adopting titles utterly incongruous; we do *not* want (putting it plainly) to become the laughing stock of the army. I should like to assure students and others who contemplate entering the medical service of the army that they need not for one moment be dissuaded from doing so by this question of rank. If a medical officer is a gentleman in the true sense of the word, as well as a careful, painstaking professional man, he is sure of the respect and esteem of his military brethren; his status and rank as an army surgeon are accorded him, and he need never wish to sail under false colours. This is my experience after twenty-five years happily spent in Her Majesty's service. I am, Sirs, yours obediently,

May 24th, 1887. ARMY SURGEON.

THE UTILITY OF DRUGS IN THE TREATMENT OF DISEASE.

To the Editors of THE LANCET.

SIRS,—As a general practitioner, I cannot allow Sir Wm. Gull's remarks, made at the meeting of the General Medical Council on May 12th, to pass unnoticed. For a man of his position, thought so highly of by the public as he is, to make the statements that "people did not get well by drugs," and that "it was the duty of the medical man not to give drugs," was, to say the least, injudicious, not to use a stronger term. It would be absolutely wasting the space of your valuable paper to argue against such utter nonsense, as the value of drugs in certain diseases is beyond all question. Sir Wm. Gull said that the Prince of Wales, when suffering from typhoid fever, did not have four doses of medicine; but we know that, of all severe diseases, typhoid fever is the one above all others that requires little or no medicinal treatment. Sir Wm. Gull also considers a warm bed when you are sick better than all the general practitioners. It would be interesting to know whether he considers a warm bed when you are sick better than all the consulting physicians, because, if he does, it is quite evident he has found a panacea for all ills—viz., a bed and a warming pan. I am, Sirs, yours truly,

Streatham, S.W., May 24th, 1887. GEO. STEELE PERKINS.

ENTERORAPHY.

To the Editors of THE LANCET.

SIRS,—I should not have ventured to trespass on your space, after your full account of the meeting at the Medical and Chirurgical Society, had not the time at my disposal for replying to the discussion been so limited that I was forced to omit, or pass very rapidly over, points which deserved much more notice. I shall be glad if you will allow me the opportunity of making these clearer. And, first, the objection raised as to the respective length of time taken by the performance of Lembert's and my own suture. Is it reasonable to compare the time taken to use Lembert's stitch by a surgeon accustomed to use it with the time taken by the same surgeon in using mine, to which he is not accustomed? Moreover, the risk to the patient in these operations is not so much in the length of time which the entire operation absorbs, although that is important, as in the length of time during which the bowel is outside the abdomen, and exposed. This dangerous time I claim to be far shorter during the use of my stitch than with any other, for whilst my own can best be done with only the cut ends exposed at the level of the skin wound, the whole of the rest being reduced, no other stitch can safely be used in this position; in which case the bowel wall lying outside is further irritated by the constant friction produced by the removal and replacement of warm towels, sponges, &c., to say nothing of the ever-varying temperature to which it is thereby subjected. With regard to the total penetration of the bowel by the stitch, as opposed to the partial one of Lembert, I should like to point out that sutures are useful for two reasons, the latter of which appears to be overlooked: first, as a means of approximating tissues designed to unite; and, secondly, as a means of exciting plastic inflammation in those tissues, and thereby securing their union. Union of the intestine has two distinct stages, in each of which distinct tissues are involved; in the choice of a method of suture regard should be had to both. The first epoch is occupied by the union of the peritoneal surfaces; this is apparently immediate, or almost so, but temporary. During this period the plastic lymph effused covers in any sutures which may be used; but the point here is that, in so far as stitches and knots irritate a peritoneal surface, so far and so much adhesion from effused lymph is to be expected. Now, whilst this is wanted between the opposed surfaces of divided ends, it is not wanted between these and the peritoneal surfaces of viscera and abdominal wall around, where adhesion would be harmful. It will readily be appreciated that whilst the knots in Lembert's stitch are outside the bowel, and so tend to excite such production of plastic lymph on the neighbouring surfaces, forming subsequent adhesions, which will be more or less permanent in proportion to the length of time during which these sutures remain *in situ*, in my stitch the knots and threads are separated from the new-formed peritoneal sac by the whole thickness of the bowel, and therefore can have no such action. Inasmuch as all sutures pass at last into the lumen of the bowel, and not into the peritoneal cavity, it is unnecessary to speculate whether or not they could do any harm there. But the secondary or permanent union takes place by connective tissue formed partly from the cellulo-fibrous layer of Gross, and partly from the subserous layer. Gross himself, in describing his experiments on animals and their results, pointed out that the main permanent union was due to the action of the cellulo-fibrous layer, and the microscopical sections shown by me demonstrate perfectly this fact, as well as the share taken by the subserous layer. Now, bearing in mind the second reason for the use of sutures, is there not an advantage in the passage of the suture through both these layers in the production of a firm and satisfactory result? The comparison between the ligature around an ovarian stump and these sutures is manifestly no parallel at all. The conditions are absolutely different. In the one a stump is left which is no longer to have any further office to perform in the economy; and the more thoroughly this is bound down by adhesion, so long as no band is formed under which a loop of bowel may be caught, the better. In the other, an attempt is made to restore the *status quo ante* in an organ, one great essential in the efficiency of which is its complete freedom of movement: in proportion as this is obtained will the operation be really successful. It will be seen at once that this comparison will not hold water. Moreover, in any case in which symptoms of sudden obstruction appeared, would not the fact of a previous ovariotomy, other things being equal, lead the surgeon to suspect internal strangulation under a band resulting therefrom?

This letter is already too long, or I should have liked to answer also the objection to operations on dogs; but doubtless such answer is perfectly apparent.

I am, Sirs, yours truly,

G. STANMORE BISHOP, F.R.C.S. Eng.

Manchester, May, 1887.

FORK SWALLOWING.

To the Editors of THE LANCET.

SIRS,—Cipriani, to whom you referred in a recent number, while imitating the exploits of a juggler in swallowing a fork, some sixteen years ago, allowed it to pass into his œsophagus beyond his control. After various attempts at extraction, made by himself, his friends, and his wife, he was, on the following day, transferred to the Ospedale de Santa Maria Nuova, where also all efforts at removal were unavailing. Several ingenious instruments were invented for the purpose, but failed. He remained in the hospital for five weeks, suffering more or less inconvenience, moral as well as physical, for the public were divided in opinion, some proclaiming him only a fool, others an impostor. A year or so afterwards, having produced severe pain, hæmorrhage, and other untoward symptoms, it was ascertained that the fork had effected its exit from the stomach, and passed into the intestines, accompanied with a relief to the more urgent phenomena; motion, however, occasioned severe suffering. He now wandered from place to place, a subject of interest to some, of ridicule to others, till three or four weeks ago he was attacked by acute pleurisy of the right side, terminating in effusion, and was admitted into the Ospedale di San Giovanni di Dio. Recovering from this, attention was again directed to "the

fork," which was discovered in the right iliac fossa, pointing obliquely upwards to the left side. It was evidently fixed in this situation, for palpation effected no change in its position, and considerable enlargement could be detected in the immediate neighbourhood. After long hesitation, he consented to an operation, which was performed by the distinguished surgeon, Professor Rosati, aided by his skilful assistant, Dr. Catani. An incision was made extending from an inch and a half below the umbilicus perpendicularly down to the pubes, and after considerable difficulty the fork was extracted from the ascending colon, the blunt end pointing upwards. There had been long and constant inflammation, as was proved by the great thickening of the bowel, adjacent tissues, and the firm adhesion of the colon to the abdominal parietes. The bowel was opened, the edges secured to the abdominal integuments, and the wound dressed in the usual way. The fork measured twenty-two centimetres, and presented but little erosion; for though the plating had disappeared, the extremities retained their original defined outlines. The time could not be calculated which it had taken in reaching its ultimate destination, but probably many years, judging from the condition of the surrounding textures. The patient bore the operation well, and was very anxious to secure possession of the fork as conclusive evidence against his detractors. There has been no fever or unfavourable symptom, and the wound is nearly healed, there remaining only a small fistulous opening communicating with the intestine. I will not take up your space by any remarks on this strange history of the journey of a fork.

I am, Sirs, yours truly,

Florence, May 9th, 1887. WILLIAM WILSON, F.R.C.P. Lond.

A SUGGESTED IMPROVEMENT IN ETHER INHALERS.

To the Editors of THE LANCET.

SIRS,—The object of this letter is to call attention to the fact, as it appears to me, that the arrangement of anæsthetic inhalers has not kept pace with discoveries in medicine, at all events of the bacteriological branch, and to suggest one remedy which seems to me successful so far as Clover's ether inhaler (than which I know none better) is concerned. Almost as soon as I commenced to administer ether, it struck me that for patient after patient to respire air from a bag which in the meantime had not been cleansed was certainly an indelicate proceeding. If patients were aware that they were doing so, many of them would object to submit to it. But it was not until I was one evening listening to a discussion on tubercle at the West London Medico-Chirurgical Society that it occurred to me that this repeated use of the same bag was also possibly injurious, for most believe now in the tubercle bacillus, and practically there is, it seems to me, every facility for its getting into the air-bag of an ether inhaler, such as Clover's, supposing the patient using it to be suffering from phthisis, possibly undiscovered. Again, patients may be anæsthetised while developing infectious zymotic disease, and I am not sure that in this way such diseases may not have been propagated. If these premisses are conceded, what is the remedy? I am informed by an eminent physiologist that the ether would not render the bacillus or germ inert. Well, then, the apparatus should be cleansed. This is not difficult, except as regards the air-bag, and the improvement I would suggest is an india-rubber bag the same size as that now in use, but of as thin a material as possible (it could scarcely be made too thin), so that it may be of so little cost that there would be no hesitation in throwing it away after use, a new one being used for each patient. Messrs. Maw, Son, and Thompson, of Aldersgate-street, have been very kind in preparing samples of the proposed bag for me. It would be possible to keep, say, half-a-dozen of the ordinary bags going—turning them inside out after use, cleansing and drying them before use again; but this would be less certain and more troublesome than renewing the very much cheaper bag which I have described. I am, Sir, yours obediently,

RICKARD W. LLOYD, M.R.C.S.,
Anæsthetist to the West London Hospital.

Russell-road, Kensington, W., May, 1887.

VACCINATION GRANT.—Mr. T. H. Tidswell, of Morecambe, Lancaster, has received the Government grant for successful vaccination (fourth time).

LIVERPOOL.

(From our own Correspondent.)

THE ASSIZES.

THE criminal business of the Spring Assizes for South-west Lancashire has just concluded, having been of nearly three weeks' duration. The medical officers of H.M. Prison at Walton will have a considerable addition to their already large experience of corporal punishment, Mr. Justice Day having ordered the punishment of the "cat" in many cases, combined with a comparatively short term of imprisonment. There were no convictions for murder, but two very aggravated cases of manslaughter: one in which a man set his wife on fire; another in which the prisoner kicked his wife to death. Among the other cases was that of a man charged with throwing a stone at a policeman, which struck him in the left eye. He was taken to the Royal Southern Hospital, where he was attended to by Dr. Dixon, and subsequently on his discharge from the hospital by Mr. F. W. Lowndes, surgeon to the police, and Mr. E. A. Browne, of the Eye and Ear Infirmary. The worst effects of the injury were observed posteriorly, the choroid and retina being torn across. Very little sight remains, the officer being only able to distinguish night from day. The prisoner was acquitted.

HOSPITAL SATURDAY.

The total amount advised to the treasurer up to May 21st was £2132. More returns have still to be made, and it is expected that this sum will be considerably increased.

THE WEATHER.

The unseasonable weather which has prevailed elsewhere has been especially marked here. It may be doubted whether any predecessor of this merry month was ever celebrated with so much influenza, winter clothing, and fires. It has influenced the mortality returns, as might have been expected, elderly people suffering severely from the effects of so unseasonable a spring after a long and trying winter.

Liverpool, May 25th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE EXHIBITION.

ALTHOUGH the weather has been anything but favourable for our Exhibition, the attendance for the past week was over 76,000. There is one circumstance acting adversely—namely, the great strike in the coal trade, which has gone on now for nearly seventeen weeks, causing a cessation of employment to over 20,000 persons; but at last there appears a prospect of this great dispute being arranged. Very little, I fear, is thought of its effect on the medical profession, but it is a heavy loss to all having colliery appointments, as of course there is no pay, and the doctor has more to do, with the exception of accidents, than when the miners are working. Among the models at the Exhibition of interest, I might mention the model dwelling erected under the superintendence of the Model Dwelling Sanitary Committee, to illustrate principles of design, construction, sanitation, decoration, and furnishing—an example of a healthy, convenient, comfortable, and complete detached residence. The model of the floating hospital on pontoons lately described in this correspondence and constructed for the Tyne Port Sanitary Commission, is also full of interest as regards hospital sanitation, and is itself the best hospital model I have ever seen.

THE PRUDHOE CONVALESCENT HOME.

The annual meeting of this Convalescent Society has just been held at its noble home at Whitley. Drs. Philipson and Baumgartner read the reports, which showed that the number admitted during the year had been 1469; of that number, 446 were from Northumberland, 486 from Newcastle, 529 from Durham, and the remainder from Yorkshire and Cumberland. Of the whole number, 1272 were cured, 149 were greatly relieved, 15 were somewhat better, 29 were *in statu quo*, and 4 died. It is pleasant to add that, although the expenses of this beneficent institution had been very

heavy, the financial year had closed with a substantial balance in the hands of the treasurer. Dr. Philipson may well be proud of the position of an institution to which he has devoted years of labour.

DEATH CERTIFICATES: A CAUTION.

At the Newcastle police court last week, Mr. W. Hardy, a gentleman in practice here, was summoned by the superintendent registrar of Newcastle and district for making out a certificate contrary to the Registration of Births and Deaths Act of 1874. It was shown that Mr. Hardy had not seen the deceased during his life, but he was attended for him by his assistant. It was pleaded that, although there had been some irregularity, it was the practice of some practitioners, when their assistants attended, to sign the certificates, and that the deceased did actually die from the complaint stated in the certificate. The bench, however, held that it was a very irregular practice, and inflicted a fine of £2 and costs. But it should be remembered that often great pressure is put on practitioners by the poor to give them certificates, which are often granted out of pure good nature without fee or reward. Medical men here will, however, do well in future to protect themselves from being placed in a false position and undergoing a very troublesome prosecution.

MEASLES IN THE NORTH.

There is a pretty extensive epidemic of measles at Seaham Harbour. Many adults have been attacked also at Morpeth, where the infant mortality is said to be so severe as to have become a subject of pulpit reference.

Newcastle-on-Tyne, May 24th.

EDINBURGH.

(From our own Correspondent.)

PRESENTATION TO DR. JOSEPH BELL.

LAST week Dr. Joseph Bell was presented with his portrait at a large meeting of his friends and admirers. The presentation was made in the hall of the Royal College of Surgeons, which was well filled, and the meeting was of an enthusiastic character. In opening the proceedings, Dr. Littlejohn referred to the family name borne by Dr. Bell as a household word in the history of surgery in Edinburgh, and spoke of the services rendered to the school and to the public by him during his thirty years' connexion with the Royal Infirmary. This connexion was inaugurated in 1856, when Dr. Bell entered the institution as a dresser, and ended last year, when he retired with the rank of senior surgeon on the acting staff. Mr. Fleming spoke of the warm enthusiasm and respect with which the students regarded their old teacher, and of their appreciation of his great powers as a clinical lecturer. The portrait was then unveiled amidst great applause, and was formally presented by Dr. Argyll-Robertson, President of the College of Surgeons, who presided. Dr. Joseph Bell then expressed his thanks in a few happily framed sentences. The picture is an excellent likeness painted by Mr. J. Irvine, and bears the inscription: "Presented to Joseph Bell, M.D., F.R.C.S.E., on the termination of his appointment as surgeon to the Edinburgh Royal Infirmary, by numerous students of the School of Medicine, and by many professional friends in town and country. 1887."

POST-GRADUATE COURSES.

A meeting of the committee that arranged the series of post-graduate courses held in September and October of last year was summoned for Monday last, when the programme for the course for the coming autumn was discussed and provisionally settled. The demonstrations which were so highly appreciated last year are to be repeated, and their scope in some instances considerably extended. A number of additional courses not included in last year's programme will probably be added to this year's list. The arrangements for the course will be finally completed and published at the end of the present month. The time selected is the same as that adopted last year—viz., the last week in September and the first two weeks in October, a period previously found most fitting the convenience of the lecturers and of those attending their demonstrations.

Edinburgh, May 24th.

DUBLIN.

(From our own Correspondent.)

THE QUEEN'S BIRTHDAY HONOURS.

IN celebrating Her Majesty's Jubilee, it is sincerely to be hoped that the profession in Ireland will not be overlooked in the dispensing of birthday honours, and that both the medical and surgical branches may receive that recognition from Her Majesty's advisers which they are undoubtedly entitled to. Successive Governments have treated the leaders of the medical profession in this country in a niggardly and ungenerous manner, and no excuse can any longer be made for the systematic ignoring of their claims to State honours. Scattering distinctions broadcast in England, and to a less extent in Scotland, while Ireland has been markedly neglected, can scarcely be regarded with equanimity by the members of the profession in this country. Confining my remarks at present to the surgical branch, there is one—a leading member of it—possessed of the highest surgical talent, gifted with great eloquence, and in every respect well fitted to receive a mark of Her Majesty's favour. Need I mention the name of Sir William Stokes, the President of the Royal College of Surgeons in Ireland, whose term of office has been filled in an exceptionally brilliant manner, and who has well deserved the highest honour which the Fellows of his College have conferred upon him. His claims for recognition cannot be disputed, and I am confident they will be favourably considered by Her Majesty's advisers.

ROYAL UNIVERSITY OF IRELAND.

The medical degrees obtained by the successful candidates at the spring examinations of this University were conferred last week by the pro-Vice-Chancellor, Sir Robert Kane.

ROYAL COLLEGE OF SURGEONS.

A meeting of the Fellows will be held on Saturday, June 4th, to receive the report of the Council for the past year; and on the following Monday the annual election of office-bearers for the ensuing year will take place. In addition to the names of candidates already mentioned for a seat on the Council may be added that of Mr. William Frazer, for many years a member of the Court of Examiners of the College.

THE QUEEN'S JUBILEE: BANQUET BY THE INCORPORATED LAW SOCIETY.

Sir William Stokes, President of the Royal College of Surgeons, responded to the toast of "The Medical Profession" at the banquet given by this Society on Monday last in honour of Her Majesty's Jubilee. He said that it was deserving of recognition, not alone on account of the fact that its great aims and objects were the alleviation of suffering, but also because it furnished an arena for the cultivation of all the sciences which might directly or indirectly tend to promote human good; and there was another reason—because it counted among its ranks so many who are devoted to works of mercy and of charity, and who are and had been true citizens and loyal men. It was a subject of congratulation to him that his tenure of office as President of the Royal College of Surgeons had been contemporary with two great events—the Jubilee year, and the union recently formed between the two great medical corporations, the King and Queen's College of Physicians and the Royal College of Surgeons. This union he looked upon as an official recognition of the fact that the barrier which had been erected years ago by foolish men, separating medicine and surgery—a barrier productive of much mischief, which tended to promote division, and which kept the two professions powerless and weak—had been shattered by the unerring artillery of common sense. Now that this union had been effected, they might look to the realisation of that which was their great aim and object—this mutual overlapping of their work, which would lead to unity in medical science.

MEDICAL MAGISTRATES.

Brigade Surgeon T. Barnwell, retired A.M.D., has been placed on the Commission of the Peace for co. Dublin.—T. J. Stafford, M.D., of Tangier, Boyle, has been appointed to the Commission of the Peace for co. Roscommon.

Dublin, May 24th.

BELFAST.

(From our own Correspondent.)

QUEEN VICTORIA CONVALESCENT HOME FOR CHILDREN.

A SHORT time ago the committee of the Children's Convalescent Home in connexion with the Belfast Hospital for Sick Children made a request, through Mr. Wm. Ewart, M.P., to Her Majesty the Queen, soliciting her patronage and permission to use her name in connexion with the Home. An answer has now been received to the effect that Her Majesty has been graciously pleased to command that the said institution shall be known as "The Queen Victoria Convalescent Home for Children." The amount required to build and endow the home is £3300, and already the sum of £1240 8*s.* 5*d.* is announced as received or promised. A pleasing feature in this movement is that the working men are co-operating with the committee, and have arranged to have collections in the various manufactories in and around Belfast.

ACCIDENT TO MR. STEWART OF GLASSLOUGH.

About three weeks since, Mr. Stewart of Glasslough sustained a fracture of the leg in the neighbourhood of the ankle joint, and, after an attempt at saving the limb had been made, it was found necessary to amputate. Mr. Hall and Mr. Young of Monaghan, Mr. Palmer of Armagh, and Mr. Huston of Tynan have been attending him, and I understand he is doing well. About the time the accident occurred arrangements were being made to present him with a testimonial, a sufficient indication of his popularity in the dispensary district of Glasslough, and this has now been done.

BELFAST ROYAL HOSPITAL.

From the report presented at the quarterly meeting held on May 23rd, we learn that during the past three months there were 499 in-patients, 233 medical and 216 surgical; while during the same period 3260 out-patients received treatment. The expenditure of the hospital up to the end of April has been £5938 0*s.* 3*d*, and this added to the debt at the close of last year of £1048 8*s.* 2*d.* makes a total expenditure of £7086 8*s.* 5*d.* The receipts from all sources have been £9804 4*s.* 4*d.*, but of this sum the bequests (£3500) have been invested, so there remains an excess of expenditure over income at the end of April of £682 4*s.* 1*d.* The board state that the hospital is in all its departments in a most efficient condition. As explained before, one of our merchant princes, Mr. Foster Green, has offered to build a wing for the treatment of consumptive cases on condition that a sum of £15,000 is raised to endow the hospital, so that this department would not be a drag on the institution. Between £7000 and £8000 have been raised, and it is hoped that before the end of the year, the time up to which Mr. Green's offer extends, the remainder will be subscribed.

Belfast, May 24th.

VIENNA.

(From our own Correspondent.)

THE ILLNESS OF PROFESSOR BILLROTH.

THE state of Professor Billroth, who is suffering from bronchitis capillaris and pneumonia catarrhalis, was very serious on Friday last. There was considerable debility of the heart's action, and a catastrophe was feared. But after inhalations of pure oxygen the patient had rallied by the next day. The bulletin just published is confirming the hope of a speedy recovery of the illustrious surgeon. He felt himself greatly relieved, the appetite was good, and he slept soundly for some hours.

THE VIENNA HOSPITAL QUESTION.

A great deal of public excitement was recently caused by a speech of an Austrian deputy, Herr Pernerstorfer, on the bad condition of the Vienna General Hospital. An endless series of grievances relating to the bad boarding and nursing of the patients was animadverted upon. The Government was induced to order an inquiry on the state of the affairs, and the physicians of the General Hospital have been examined by a commission consisting of officials of the Government (*Statthalterei*). So far as I can gather, the statements made by Herr Pernerstorfer on the mismanagement prevailing in the General Hospital seem to be proved by the evidence obtained from the physicians of the hospital. The examinations are continued daily. By a decree of the governor of Lower Austria the introduction of a book of grievances in all public hospitals has been ordered. But it is hoped that this impracticable measure will soon be withdrawn. The director of the hospital, Herr Hofrath Hofmann, has not as yet asked to be relieved of his duties, as had been reported by the daily newspapers, but having suffered some time ago an apoplectic attack, he obtained sick leave for Baden, near Vienna.

NEW TREATMENT OF GRANULO-FUNGOUS INFLAMMATIONS.

In the clinical wards of Professor Albert I had recently occasion to see some cases exhibiting very favourable results of a new method for treating granulo-fungous inflammations, which seems to deserve the attention of medical practitioners. By theoretical considerations and by experiments made on animals, Dr. Gustav Kolischer, one of the pupils of Professor Albert, has been induced to try the local application of phosphate of lime in cases of fungous disease. The results obtained by this treatment were in all cases highly satisfactory. The medicament, which is prepared by adding phosphoric acid to the water in which the phosphate of lime is dissolved, was administered by injections into the diseased parts, or by dressings impregnated with the salt. The majority of the patients treated with phosphate of lime were children between six and twelve years of age. There were two cases of white swelling of the elbow, with ankylosis, fever, and pain; after six weeks they were cured, with perfect freedom of movement. In another case of fungous disease of the knee with pain, the mobility was partly restored after four weeks' treatment. With similar results some cases of caries manus in children and adults were treated. The most remarkable case was that of extensive destruction of the knee joint by granulo-fungous inflammation in a boy twelve years of age, with hectic fever, severe pains, necrosis, and large cavities in the bones. The cavities having been stuffed with phosphate of lime gauze, recovery proceeded quickly; after three weeks the cavity was filled with fair granulations up to the surface, and the fever and pain ceased. The use of phosphate of lime proved also very efficacious in a case of tuberculous fistula of the rectum, which resulted in perfect recovery. But this remedy has some disadvantages. It exerts a slightly irritating effect, and causes pain, which continues during the first six hours after its application, and is followed by fever, which lasts a day or two.

A NEW AUSTRIAN PHARMACOPŒIA.

As nearly twenty years have elapsed since the Austrian Pharmacopœia was revised, the Minister of the Interior has appointed a commission of physicians and pharmacologists to prepare a new (seventh) edition. Among the new remedies to be recognised in this edition will be acid. pyrogallicum, amylium nitrosum, the bromine salts, antipyrinum, chrysarobinum, cocainum, hydrargyrum tannicum, cortex condurango and C. quebracho, lithium carbonic., mentholum, naphthalum β, naphthalinum, physostigminum salicyl. and sulf., thymolum, vaselinum, pilocarpinum hydrochl.

Vienna, May 22nd.

SCIENCE *EN FÊTE:* THE CONGRESS OF HYGIENE AT FLORENCE.

(From our own Correspondent.)

As if sensitive to the charge of a distinguished compatriot that "the Italians are a carnival people," the Florentines, amid the gay and imposing ceremonies that have made their city the resort of the artistic world for half the month of May, have introduced a scientific foil to the festive monotony, and in a "Congress of the Hygienic Societies of Italy" have at once relieved and heightened the enjoyment of the brilliant commemoration of Rossini and Donatello, of the historic *cortège* and tournament, and of the crowning solemnity of all—the unveiling of the façade of their glorious cathedral, the Santa Maria del Fiore. On Sunday, the 8th, in the Hall of the Istituto di Studii Superiori, the sanitary associations of the peninsula held their first Congress, and its promoters have every reason to be

gratified with the success they have earned. The hall itself, almost severe in its purely academic aspect, was adorned with the insignia of the leading hygienic societies of Italy—those of Brescia, Padua, Turin, Palermo, and Florence herself being conspicuous in the *trofeo*. A numerous and distinguished audience, including many ladies, more than filled it, as the President, Professor Paoli, opened the proceedings, indicating the signal services vouchsafed to the common weal by a sound and well-organised hygiene, and dwelling on the advances Italy has yet to make if she intends to assume her proper place in the State system of Europe. The usual congratulatory speeches and telegrams having been heard from the various representatives of the Government and of the learned societies, the audience rose to visit the "Esposizione d'Igiene"—a splendid assortment of sanitary apparatus and appliances, for which the spacious rooms of the Palazzo Fenzi had been hospitably thrown open. Much interest was taken in the mechanism of Professor G. Koster for the analysis of atmospheric air, a series of experiments being performed to illustrate its efficacy; while attention was equally attracted by the various systems of domestic convenience, from latrines to filters, devised by Italian officers of health.

In the afternoon sitting Professor G. Pacchiotti, who represented Turin, read an elaborate paper on the "Vaccinazione Anti-rabica" of Pasteur, in which he described the methods pursued by the French pathologist, reviewed the results, favourable and unfavourable, on the patients, and concluded by giving a guarded estimate of the system, maintaining that on the whole the good achieved was more than the risk incurred. An animated and discursive conversation ensued, in which Professors Ruata, Calovolo, and Luciani took the chief part.

Monday's proceedings included a discussion of the principal clauses of the New Code of Public Hygiene submitted to the Senate of the kingdom by the Prime Minister Depretis; after which the topics ranged from Italian sanitation in general to that of Florence in particular, and concluded with an interesting conference on the dispensary doctors of Italy, their qualifications and responsibilities, and the need for a higher remuneration of their services, especially in the remoter communes. The demand for a Minister of Public Health was urgently represented by the *conferenziere*, Dr. Benizzardi of Brescia, and the discussion received important contributions from Dr. Faralli of Florence and Professor Pacchiotti, the latter urging the claims of duly qualified lady doctors on the recognition of the State, and arguing that their possession of a diploma in medicine or surgery entitled them to the same offices and remuneration as similarly qualified men. The "Free Exercise of Pharmacy" was another keenly canvassed topic, ending in an almost unanimous consensus in favour of the exclusive rights of the pharmacists. In the evening a great banquet was held in the Sala Cornelio, at which a series of toasts, all tending to the fraternisation of the hygienic societies throughout the peninsula, were eloquently given and heartily acknowledged.

On the 10th, Dr. Bonizzardi, representing Padua, opened the day's business by demonstrating a method of his own for "The Easy Distinguishing of the Carcases of Animals dead from Epizootic Disease." He was followed by Dr. Busi, representing Palermo, on "Cremation as practised in Florence," and by Professor George Koster on the "Carbonic Acid of the Soil and Air of Florence;" after which a visit to Professor Koster's laboratory and observatory and to the Ophthalmological Clinique of Professor Paoli (President of the Congress) closed the proceedings for the forencon. In the afternoon interesting papers were read by Dr. d'Ancona on "Rural Dwellings"; Dr. Bonizzardi on the "Drainage of Cities"; and by Dr. A. Bianchi on the "Selection of Troops for Service in Tropical Africa." This last led to a very keen discussion, in which Professor Pacchiotti took an able part. "Orders of the day" (as is usual in continental congresses) were thereafter moved and carried, and with a few appropriate remarks Professor Paoli declared the Congress dissolved—the second to be held at Brescia in the autumn of 1888.

THE VACCINATION ACTS.—The Gloucester Board of Guardians has, after a long discussion, decided, by 20 votes to 18, that nineteen persons who were reported for not having their children vaccinated should not be prosecuted, and that in future the vaccination officers shall not take proceedings in case of default without the direct sanction of the board.

Obituary.

JAMES TROUTBECK, M.B.

WE recorded last week the death of this gentleman, who was stricken down by pneumonia when apparently enjoying most robust health. James Troutbeck was a Cumberland boy, and as such was educated at Appleby Grammar School. After completing his school education there he commenced his medical studies at the Edinburgh Infirmary, and supplemented them by a great deal of work at the Carlisle Infirmary for three years. Here he was a great favourite with all; his kindness and gentleness endeared him to the patients, and his diligence and cheerful disposition made him an excellent servant of the institution. He subsequently came south and entered upon general practice at Bushey, and for some years worked laboriously at it. Leaving there, he recently took a practice at Finsbury-park. On Saturday, May 14th, he was in his usual health and retired to bed early. During the night he was seized with severe pain in the chest, and remained in-doors on a couch all Sunday. On the Monday he went into the City and saw his solicitor, and then consulted a surgical friend under the impression he had injured his ribs. It was found, however, that there was pneumonic consolidation of his left lung, and from his general condition grave fears were entertained, which were only too quickly realised; for during the next night he became unconscious and died at midday on Tuesday. His frank generous nature and his unvarying kindness had endeared him to a large circle of patients and friends.

KARL FRIEDLÄNDER.

AT Meran, in the Austrian Tyrol, in his fortieth year, has just died this able pathologist, leaving behind him a high reputation for what he did, and a still higher one for what he was expected to do. Beyond the strictly scientific "inner circle" he was little known; he was never in professional practice; he was a pathological anatomist pure and simple. A native of Brieg, in Silesia, he graduated as Doctor in Medicine in 1869. In 1874 he was assistant in the Pathologico-Anatomical Institute at Strasburg under Professor Friedrich von Recklinghausen—a post which he held for five years. In 1879 he removed to Berlin, where, in the Friedrichshain Hospital, he filled the modest position of assistant superintendent of post-mortem examinations. In the academic scale he never rose higher than a *privat docent*, and only a few months ago obtained the title of Professor, without, however, an official chair. He published from time to time the results of his investigations, his best known book being his "Mikroskopische Technik," a favourite manual with the beginner and even the proficient in microscopy. His other publications include "Researches on Local Tuberculosis" (1873); on "Lupus" (1874); on "Epithelioma and Carcinoma" (1877); and on "Hypertrophy of the Heart" (1881). In the recent investigations into micro-organisms he took an energetic part, his special contribution to the subject being his discovery of a micrococcus, for which he claimed a distinct pathological *rôle* in pneumonia, and which he first described in Virchow's *Archiv.* (1882). This minute germ integer is now referred to in the nomenclature of bacteriology as "Friedländer's coccus." In the fortnightly *Fortschritte der Medicin* he continued his microscopic work with equal energy and ability, and raised that periodical (published by Fischer, in Berlin) to the front rank among German scientific journals. The last number was published the day after its editor's death, which is announced by a few touching words of regret by Drs. Fürbringer, Hahn, Gottstein, and Kornfeld. *Multis ille bonis flebilis occidit.*

SAMUEL R. MOREWOOD, A.B., M.B. (T.C.D.).

WE regret to have to announce the death of this gentleman, which took place on May 20th after a short illness. Mr. Morewood for the past eight years has been medical officer of the Dispensary, Draperstown, co. Derry, and medical attendant of the constabulary. Mr. Morewood was a licentiate of the Royal College of Surgeons of Ireland

and a graduate in Arts and in Medicine of Trinity College, Dublin. He succeeded his father, who for thirty-two years was medical officer in Draperstown, and it is worthy of note that the same appointment was held by his grandfather for a period of twenty-seven years, so that for the greater part of a century members of the family have been in practice in Draperstown. Mr. Morewood's death, occurring at an early age (thirty-five), has caused very deep sorrow in the neighbourhood where his family have been so long held in the highest respect, and universal sympathy is felt for Mrs. Morewood and the members of his family. The funeral took place on Wednesday.

THE SERVICES.

Deputy Surgeon-General D. A. C. Fraser, M.B., the Principal Medical Officer of the South-Eastern District, has joined the Southern District for duty at the Royal Victoria Hospital, Netley, in succession to Surgeon-General W. S. Murray, whose appointment to Egypt we noticed last week.

Deputy Surgeon-General T. Tarrant, M.D., has handed over his charge at Bangalore and joined in Madras for duty.

ARTILLERY VOLUNTEERS.—3rd Volunteer (Duke of Cornwall's) Brigade, Western Division, Royal Artillery: John Quick, Gent., to be Acting Surgeon (dated May 21st, 1887).—1st Forfarshire: Robert Soutar, M.B., to be Acting Surgeon (dated May 21st, 1887).—1st Dorsetshire: Surgeon C. W. Parkinson resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the corps on his retirement (dated May 21st, 1887).—5th Durham: Richard Brown, M.B., to be Acting Surgeon (dated May 21st, 1887).

Medical News.

COLLEGE OF PHYSICIANS IN IRELAND.—At the May examinations the following obtained licences in Medicine and Midwifery of the College:—

MEDICINE.—John Theodore Abbott, Alfred William Bewley, William Grounds Booth, Charles Edward Boyce, William Mitchell Branson, Thomas B. Burrowes, Frederick Norris Burwell, Harry Cartmell, Edward Joseph Cotton, Charles Edward Dawson, Robert Harper Dickson, William Dunbar, Julius Martin Ehrhardt, Cornelius Gerald Fitzgerald, Robert Alexander Flynn, Arthur Goff, William Robert Graves, Henry Bertram Greene, Robert William Harley, John G. Harries, Joseph Thomas Harty, John Henry Lister, George John Lough, Charles John Lyons, William McGeagh, James Magauran, James Hastings Morgan, Oliver Norris, Joseph Edward O'Meara, Andrew William Orr, Pierce Hugh Power, Hugh Roberts, Henry Harlow Sales, Harry Paynter Sloggett, John Edwin Slott, Harry William Smith, Timothy Thaddeus Teahan, George Thorpe, John Westwood, and Thomas Owen Williams.

MIDWIFERY.—John Theodore Abbott, William Grounds Booth, William Mitchell Branson, Harry Cartmel, Robert Harper Dickson, Cornelius Gerald Fitzgerald, Robert Alexander Flynn, Arthur Goff, William Robert Graves, Joseph Thomas Harty, George John Lough, Charles John Lyons, Arthur Kennedy McCutcheon, James Magauran, James Hastings Morgan, Oliver Norris, Harry Paynter Sloggett, John Edwin Slott, Harry William Smith, and Thomas Owen Williams.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on May 19th:—

Baxendell, Arthur, Rose Hill, Denton, Lancs.
Clark, Percy John, Margaret-street.
Cockerton, Herbert, St. George's Hospital.
Crowther, Astley Brodie, Laurel Bank, Luddenden, Manchester.
Date, W. Horton, St. Leonard's-place, Moseley, Birmingham.
Elias, James, Essex-road, Sale, Manchester.
Ewbank, William Withers, Hilgrove-road, Hampstead.
Wood, Frederic Charles, Hutton, Brentwood, Essex.

KING'S COLLEGE HOSPITAL.—The annual festival dinner in connexion with this Hospital was held on the 23rd inst., the Lord Mayor presiding, when a list of donations amounting to £1786 was announced by the secretary.

METROPOLITAN CONVALESCENT INSTITUTION.—By the permission of the Duke of Westminster a meeting in support of the interests of this institution was held at Grosvenor House on the 23rd inst. During the forty-seven years in which the charity has been in active operation more than 100,000 patients have been admitted to its benefits, the number last year being 4500.

THE Hospital Sunday collection at West Hartlepool was held on the 22nd inst.

VICTORIA HOSPITAL, BOURNEMOUTH.—At a meeting of the Hospital Committee a few days since it was announced that the subscriptions to the fund being raised for the erection of a hospital in celebration of the Queen's Jubilee had amounted to about £5000, and there was a like sum available for the same purpose from the old Dispensary Committee.

THE sum of £1000 having been offered by Mr. John Geddes towards the building of a new infirmary for Southport, a committee has been appointed to report upon the character, convenience, and structural arrangement of the present infirmary, which is said to be very inadequate to the demands made upon it.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—At the children's service on the 22nd inst. at Berkeley Chapel, Mayfair, the offertory, which amounted to considerably over £100, was collected on behalf of the children's Jubilee tribute for the erection of a new wing to this institution, of which Her Majesty is patron.

AT the forty-second annual meeting of the governors of and subscribers to the Birmingham and Midland Ear and Throat Hospital on the 23rd inst., it was reported that during the past year the income had amounted to £615, a sum which exceeded the expenditure by £129. The total number of cases registered at the hospital during the year was 3243.

DEVON AND EXETER HOSPITAL.—At the annual meeting of the governors of this institution, on the 19th inst., it was reported that during the year 1391 in-patients and 1932 out-patients had been treated. The ordinary income amounted to £7159, as compared with £7252 for the previous year, and the expenditure to £7908, as compared with £8106.

IN an action recently brought in the Loughborough County Court by two medical practitioners for the recovery of fees for professional attendance, the question of the reasonableness of the charges was submitted to Dr. Benfield of Leicester and Dr. Paul of Loughborough. The arbitrators ruled that the charges generally were exceedingly moderate, and one or two items having been struck out, judgment was accordingly given for the plaintiffs.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.—At St. George's Hall on Thursday evening, in aid of this hospital, a grand variety entertainment was given. Not the least interesting part of the varied programme was a gavotte, danced, in costumes of the period, by four ladies and four gentlemen. The entertainment was the first of a series which the friends of the hospital are promoting, with the object of raising a fund of £2500 for the purchase of the lease and the extinction of the debt with which the hospital has for some years been burdened. The hall was well filled, and the performances much applauded.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The eleventh annual meeting of the British Medical Temperance Association was held at 11, Chandos-street, Cavendish-square, on Tuesday last; in the unavoidable absence of the President, Dr. Norman Kerr took the chair. The annual report stated that there are at present 350 members (all total abstainers), and 72 associates (abstaining medical students). Dr. Kerr read an account of the work of the Dalrymple Home for Inebriates since its establishment three years and a half ago: 103 cases had been admitted, of whom 85 have been discharged, and of these 36 are known to have done well. Dr. Walter Pearce read a paper on a case of acute cardiac dilatation due to alcohol. Dr. J. J. Ridge also showed experiments proving that quantities of alcohol under 2 per cent. promote the growth of bacteria in decomposing fluids, while the same quantities had been proved to be injurious to the growth of constructive protoplasm.—The annual meeting of the Central Irish Branch of the Association will be held in the Royal College of Surgeons, Dublin, on Tuesday, June 7th, at 4.30 P.M. The chair will be taken by the President of the Branch, Deputy Surgeon-General F. L. G. Gunn. Brigade Surgeon F. E. McFarland (President of the North of Ireland Branch), Dr. T. Collins, Dr. Lunn, Mr. R. Morton, F.R.C.S., and Mr. Learson will speak. The meeting is open to all members of the medical profession

LONDON HOSPITAL.—The ceremony of opening the Nursing Home and new library and other college buildings at this hospital was performed on the 21st inst. by the Prince and Princess of Wales, in the presence of a large and influential assembly.

THE Association for Preventing the Adulteration of Butter in Amsterdam has offered a prize of 1000 florins for the best means of detecting any foreign elements in natural butter made from the milk of the cow.

TOTTENHAM HOSPITAL.—The new wing (Samuel Morley Memorial Wing) of the above institution will be formally opened by the Princess of Wales at 3 o'clock this day (Saturday). This recently completed part of the hospital contains two children's wards, with fourteen cots each; sisters' dining-room; on the first floor, wards for paying patients in separate rooms, and "cubicals"; on the second floor, the operating room, which is reached by a hydraulic lift.

PARKES MUSEUM.—On June 1st and two succeeding Wednesdays, Dr. B. W. Richardson will deliver a course of lectures at the Museum, Margaret-street, on the Medical and Scientific Aspects of the Temperance Question. A very successful series of sanitary demonstrations to the medical profession has just been held in the Museum. The closing demonstration was given on the 23rd inst. by Mr. Percival Gordon Smith, of the Local Government Board, which related principally to the construction and ventilation of houses. On the 19th inst. a lecture was delivered by Major Lamarock Flower, C.E., on "The River Lea," in which he gave a description of the geology of the watershed area and of the navigation of the river from the Danish epoch till the present time.

THE FRENCH HOSPITAL.—The Prince of Wales was present on the 23rd inst. at an assault-of-arms at Willis's Rooms, given in aid of this institution. In the twenty years that the hospital has been open it has given relief to 4460 in-patients and over 100,000 out-patents. A new building, to accommodate double the number of patients, is to be erected shortly in Shaftesbury-avenue, and to this the Queen has given her patronage and a handsome subscription to the building fund. The entertainment on the 23rd was under the patronage of M. Waddington, the French Ambassador, and the company present included many of the leading French and Italian residents in London.

ROYAL UNIVERSITY OF IRELAND.—The following Honours have been awarded to candidates at the recent examinations of the University:—Second Examination in Medicine: Second Honours, Eleonora Lilian Fleury and Thomas Jones; Second Class Exhibition (£20), Eleonora Lilian Fleury. M. B. Degree Examination: First Honours, Ambrose Edward Birmingham; Second Honours, Edmond Joseph M'Weeny and William Westropp White. First Class Exhibition (£50), Ambrose Edward Ignatius Birmingham; Second Class Exhibition (£25), E. J. M'Weeney. M.Ch. Degree Examination: First Honours, John Wallace Watson; Second Honours, William Baird M'Quitty. M. A. O. Degree Examination: First Honours, William Westropp White and William Baird M'Quitty; Second Honours, Eaton William Waters, Edmond Joseph M'Weeney, and Jerome Barry. Doctor of Medicine: Second Honours, W. W. White. Bachelor of Medicine: First Honours, Ambrose Edward Ignatius Birmingham; Second Honours, E. J. M'Weeney. Master of Surgery: First Honours, J. W. Watson; Second Honours, W. B. M'Quitty. Master of Obstetrics: Honours, 1st Class, W. W. White and W. B. M'Quitty; Second Class, E. W. Waters, E. J. M'Weeney, and Jerome Barry.

THE LEVÉE.—At a levée held on the 21st inst. at St. James's Palace by His Royal Highness the Prince of Wales on behalf of Her Majesty, the following amongst other presentations were made:—Surgeon J. F. Henry Bottrell, Volunteer Medical Staff Corps; Surgeon-Major George R. Barnes, 3rd Surrey Rifle Volunteers; Surgeon Robert Hippisley Cox, Coldstream Guards; Surgeon Herbert Collier, M.D., Royal Naval Artillery Volunteers; Surgeon William Collingridge, M.D., Volunteer Medical Staff Corps; Staff Surgeon A. G. Delmege, on appointment to Royal yacht *Osborne;* Surgeon A. P. H. Griffiths, Medical Staff, on his return from active service; Dr. J. de Burgh Griffith, of Melbourne; Surgeon Charles H. Hartt, Volunteer Medical Staff Corps; Surgeon Henry St. George Standish Hore, Medical Staff; Hon. Surgeon Edmund Distin-Maddick, Royal Naval Artillery Volunteers; Mr. Alexander O. Mackellar, chief surgeon to the Metropolitan Police Force; Surgeon George Hutchinson Milnes, R.N.; Inspector-General D. M'Ewan, M.D., R.N., on promotion and appointment as Honorary Physician to the Queen; Deputy Inspector-General H. F. Norbury, C.B., R.N., on promotion; Surgeon Herbert Innes Pocock, Medical Staff; Dr. Smith, Vice-President of the Royal College of Surgeons of Edinburgh and Surgeon Dentist to the Queen in Scotland; and Sir William Stokes, President of the Royal College of Surgeons of Ireland. Amongst those present at the levée were the following members of the medical profession:—Drs. M. Baines, Brodie, H. M. Chester, W. M. Collins, Fleming, Ralph Gooding, Lowe, William Moore, Minter, J. D. Macdonald, Poore, W. S. Playfair, Henry J. Strong, Quain, Mark Tanner, Thorne Thorne, George Wilks, Shapurji Aspaniarji Kapádiá, Rastamji Dhanjibhai Sethna, and Mr. Navoroji Manekji.

VICTORIA HOSPITAL FOR CHILDREN.—The twenty-first annual Court of Governors of this institution at Chelsea was held on the 18th inst. Mr. Martin R. Smith, the chairman, remarked that the new out-patients' wing had been completed nearly a twelvemonth, and that about 58,000 children had been treated during the past year.

THE offertory at the special jubilee service held at St. Margaret's Church, Westminster, on the 22nd inst., which has been forwarded to the treasurer of the Westminster Hospital, amounted to £123.

POPLAR HOSPITAL FOR ACCIDENTS.—The thirty-second annual festival in aid of the funds of this institution was held on the 20th inst., Mr. Sydney Buxton, M.P., presiding. The committee desire to extend the Samaritan Fund for assisting patients who have left the hospital and require medical appliances, and also to establish in connexion with the hospital convalescent homes where patients can be sent. They are anxious, too, if possible, to obtain sufficient funds to sever the in-patient department from that for out-patients. At present, in consequence of insufficient accommodation, the out-patients have to be seen in the basement of the building. Over 9000 patients were treated during last year, the number having nearly doubled in five years. During the evening subscriptions amounting to £1405 were announced by the secretary.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of this Society was held at Berners-street on May 18th, Sir James Paget, Bart., President, in the chair. The annual report for 1886 was read by the secretary, from which it appeared that the number of members was 343 (twenty less than in 1885); only five new members had been elected, sixteen had died, and nine resigned or ceased to be members. The Society had lost two vice-presidents during the year by the deaths of Mr. Cooper Forster and Dr. Harvey Kempton Owen. The number of widows receiving grants was sixty-four—the same as in 1885; but the number of orphans had been reduced from nine to six, and there were three orphans receiving grants from the Copeland Fund. Five widows had been elected and one orphan. Five widows had died or become ineligible for further assistance, and three orphans had ceased to receive relief, having reached the age of sixteen. The amount distributed in grants had been £2750, and the expenses had been £243. Owing to the want of funds the directors had not been able to make any present to the widows and orphans last Christmas. Two legacies had been received—one of £50, from the executors of Miss Anne Lyne, per Dr. Stokes; another of £300, from Dr. Harvey K. Owen, V.P. The funded property had been increased by the purchase of £146 Metropolitan Consolidated Stock. Mr. Mould was elected a vice-president in the place of Dr. Iliff, deceased, and the following gentlemen were chosen directors in the place of the six senior, who retired by rotation—viz., Dr. Birkett, Dr. H. M. Duncan, Mr. Langton, Dr. J. M. Bright, Dr. F. de Havilland Hall, and Mr. Malcolm Morris; and Mr. Ware, Dr. Quain, Dr. John Clarke, and Mr. Fuller were elected trustees of all the funded property of the Society. A special grant of £26 was made to one widow. Votes of thanks to the editors of the medical journals were carried unanimously, for their kindness in assisting in making known the objects of the Society. It was resolved that the centenary of the Society should be celebrated next year by a dinner. A vote of thanks to the chairman closed the proceedings.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Stricture of the Urethra, its Diagnosis and Treatment facilitated by the use of new and simple Instruments. By H. Distin-Maddick, F.R.C.S.Ed. pp. 154, Illustrated by Original Wood Engravings.
Inoculation for Rabies and Hydrophobia. By Surgeon-General C. A. Gordon, M.D. pp. 127.

CHURCHILL, J. & A., New Burlington-street, London.
Abdominal Surgery. By J. Greig Smith, M.A., F.R.S.E. pp. 606, Illustrated.
Practitioner's Handbook of Diseases of the Ear and Naso-pharynx (Third Edition of the "Aural Surgery"). By H. Macnaughton Jones, M.D., M.Ch. pp. 176.
The Student's Guide to the Diseases of Children. By Jas. Frederic Goodhart. Second Edition. pp. 692.

FISCHER G., Jena.
Lehrbuch der Allgemeinen und Specielien Pathologischen Anatomie. Von Dr. Ernst Zeigler. Zwei Bände. S. 490—1020, mit 1099 Abbildungen.

FÜSSLI & Co., Zurich.
Bad St. Moritz im Oberengadin. Von Dr. C. Veraguth. S. 161.

GRIFFIN, C., & Co., Exeter-street, Strand, London.
A Practical Treatise on Diseases of the Eye. By Dr. E. Meyer. Translated by Dr. Freeland Fergus, M.B. pp. 637, with numerous Illustrations and three coloured Plates.

HAMILTON, ADAMS, & Co., Paternoster-row, London.
What can a Mother do to Preserve her Children's Teeth? By H. C. Quinby, L.D.S.R.C.S. pp. 59, with Illustrations.

HOGG, J., Paternoster-row, London.
The Cookery Primer, for School and Home Use. By Agnes C. Maitland. pp. 158. Price 1s.

JOHNSON, C. J., Chicago.
A Manual of Weights and Measures, with Rules and Tables. By Oscar Oldberg, Pharm. D. Second Edition, revised. pp. 246.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.
Three Lectures on the Anatomy of Movement. Delivered at the Royal College of Surgeons. By Francis Warner, M.D. &c. pp. 135, with Illustrations.

LEWIS, H. K., Gower-street, London.
Indigestion, Biliousness, and Gout, in its protean Aspects. Part I.: Indigestion and Biliousness. By J. Milner Fothergill, M.D. Second Edition. pp. 323.
Manual of Bacteriology. By Edgar M. Crookshank, M.B.Lond., &c. Second Edition, revised and considerably enlarged. pp. 439, Illustrated with Coloured Plates and Wood Engravings.

LONGMANS, GREEN, & Co., Paternoster-row, London.
Social Arrows. By Lord Brabazon. Second Edition. pp. 414.
The Health of Nations: a Review of the Works of Edwin Chadwick. With a Biographical Dissertation. By B. W. Richardson. In Two Volumes. pp. 377—440. price 28s.

MURRAY, JOHN, Albemarle-street, London.
Letters from a Mourning City (Naples, 1884). By Axel Munthe. Translated from the Swedish by Maude V. White. pp. 289.

PENTLAND, YOUNG J., Edinburgh.
Elements of Pharmacology. By Dr. Oswald Schmiedeberg. Translated under the Author's supervision by Thomas Dixson, M.B. pp. 223.
Diseases of Women. By Dr. F. Winckel. Translated by Dr. J. H. Williamson. With an Introduction by Theophilus Parvin, M.D. pp. 674, with Illustrations.
The Principles and Practice of Operative Surgery. By Stephen Smith, A.M., M.D. New and thoroughly revised edition. pp. 877, Illustrated with 1008 Woodcuts.

PUTNAM'S SONS, New York and London.
Sphygmography and Cardiography, Physiological and Clinical. By A. T. Keyt, M.D. Edited by A. B. Isham, M.D., and M. H. Keyt, M.D. pp. 229, Illustrated.

REDWAY, GEORGE, London.
Ambulance Sermons: being Popular Essays on Medical and allied Subjects. By J. A. Austin, M.D. pp. 284.

SWAN SONNENSCHEIN, LOWREY, & Co., Paternoster-square, London.
The Fungus-Hunter's Guide. By W. Delisle Hay, F.R.G.S. pp. 157, with Illustrations.

TRÜBNER & Co., Ludgate-hill, London.
Carlsbad, its Thermal Springs and Baths, and how to use them. By J. Kraus, M.D. Third Edition, revised and enlarged. pp. 138.

UNWIN, FISHER, Paternoster-square, London.
The Massage Cure. By Cyril Bennett. Two Vols. pp. 240—228.

WREDEN, F., Braunschweig; WILLIAMS & NORGATE, London.
Lehrbuch der Kinderkrankheiten. Von Dr. Adolph Baginsky. Zweite verbesserte und vermehrte Auflage. S. 902.

Zur Geschichte der Phosphornekrose. Eine Streitschrift von Dr. F. Ris in Kloten (Scheuchzer, Bülach).—Transactions of the Obstetrical Society of London, Vol. XXIX.—Die Massage in der Gynäkologie; von Dr. P. Profantee (Braumüller, Wien).—The Carbonic Acid, Organic Matter, and Micro-organisms in Air, more especially of Dwellings and Schools; by Professor Thomas Carnelley, D.Sc., J. S. Haldane, M.A., M.B., and A. M. Anderson, M.D. (Trübner).—Index Medicus, Vol. IX., No. 4.—The Hunterian Oration; by W. S. Savory, F.R.S.—Stato attuale delle nostre Conoscenze sulla Natura della Malaria; nota del Socio Corrado Tommasi-Crudelli.—By Wm. Hunter, M.D.Ed.: The Duration of Life of Red Blood-corpuscles after Transfusion; Intra-peritoneal Transfusion of Blood and the Fate of Absorbed Blood.—New Commercial Plants and Drugs, No. 10; by Thos. Christy, F.L.S., &c.—Notes on Rescue Work; by Arthur Brinckman (Palmer). — Aetiologisches und Anatomisches über Lungenochwindsucht; von Dr. Johannes Orth.—De la Jugulation de la Fièvre Typhoïde au Moyen de la Quinine et des Bains tièdes; par le Dr. G. Pecholier.—Observations on Milk Scarlatina; by Prof. Brown; and Report on a Disease in Cows in its Relation to the Scarlatina Epidemic in the N.W. District of London in 1885; by Prof. Axe.—Magazines for June: Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper.—Mr. *Punch's* Victorian Era: an Illustrated Chronicle of Fifty Years of the Reign of Her Majesty the Queen (Bradbury & Co.)

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAILEY, T. RIDLEY, M.B.Ed., has been reappointed Medical Officer of Health to the Bilston Union.
BISHOP, WILLIAM, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Fifth District of the Bridge Union.
BUTTER, JOHN KERR, M.D., C.M.Aber., has been appointed Medical Officer for the Cannock District of the Cannock Union.
CANT, WILLIAM EDMUND, M.D., F.R.C.S., has been appointed Assistant Surgeon to the Central London Ophthalmic Hospital.
CARLESS, ALBERT, M.B., has been appointed Ophthalmic Clinical Assistant to King's College Hospital.
COX, A. H. LISSANT, M.R.C.S., L.R.C.P., has been appointed House-Surgeon to King's College Hospital.
GALLOWAY, WALTER, L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Birtley District of the Chester-le-Street Union.
HENSLEY, A. E., M.R.C.S., L.S.A., has been appointed Assistant House-Physician to King's College Hospital.
JEPSON, EDWARD CANE, F.R.C.S.Eng., L.S.A., has been appointed Medical Officer to the Durham Union Workhouse, vice Boyd, resigned.
KERR, WILLIAM SMITH, M.D.Glas., L.R.C.S.Ed. (and not James Kerr, M.B., C.M.Ed., as stated in our last issue), has been re-elected Surgeon to the Dumfries and Galloway Royal Infirmary.
LYON, THOMAS M. M., M.B., C.M.Ed., has been appointed Medical Officer for the Ford District of the Glendale Union.
MACNAB, ALLAN J., M.R.C.S., L.R.C.P., has been appointed House-Surgeon to King's College Hospital.
MAIR, R. S., M.St.And., F.R.C.S.Ed., has been appointed Physician to his Highness Prince Malcom Khan and the Persian Embassy, vice Vincent Ambler, deceased.
MARIETTE, ERNEST P.A., M.R.C.S., L.S.A., has been appointed House-Accoucheur to King's College Hospital.
OWEN, J. V., M.R.C.S., L.S.A., has been appointed House-Surgeon to King's College Hospital.
PEDLEY, R. DENISON, L.D.S., M.R.C.S., has been appointed Assistant Dental Surgeon to the National Dental Hospital, Great Portland-street, W.
PHILLIPS, JOHN, M.R.C.S., L.S.A., has been appointed Medical Officer for the Llanboidy District of the Narberth Union.
REYNOLDS, H. S., L.R.C.P., F.R.C.S.Ed., has been appointed Medical Officer for the Codnor-park District of the Basford Union.
SANDERS, CHARLES, M.B.Lond., M.R.C.S., has been appointed Medical Officer of Health for the Borough of West Ham, vice Drake, resigned.
SKELLY, WILLIAM, B.A., M.D. Q.U.I., L.R.C.S.Ed., has been appointed Medical Officer for the East District of the Poplar Union.
STEPHENS, R. J., L.S.A., has been appointed Assistant House-Accoucheur to King's College Hospital.
WHEATLEY, JAMES, M.R.C.S., L.S.A., has been appointed House-Physician to King's College Hospital.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Junior Visiting Surgeon. Salary £60 per annum, with board and laundry service.
CAMBERWELL PROVIDENT DISPENSARY, S.E.—Four Medical Officers.
CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Anæsthetist.
EASTBOURNE UNION.—District Medical Officer. Salary £85 per annum, with the usual extra fees.
EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Registrar and Chloroformist. Salary £30 per annum, with additional £30 if the post is held for twelve months.
GROVE HALL, Bow, E. — Assistant Medical Officer to large private asylum. Salary at the rate of £130 during the first year; afterwards of £150. Board, lodging, and washing.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Clinical Assistant.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary £70 per annum, with residence and maintenance in the house.

METROPOLITAN FREE HOSPITAL, Kingsland-road, Shoreditch, E.—Dental Hospital.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Senior Resident Medical Officer. Salary £60 per annum, with furnished apartments, board, attendance, and washing.—Junior Resident Medical Officer. Salary £30 per annum, and like accommodation.

ONGAR UNION, Essex.—Medical Officer and Public Vaccinator. Salary £75 per annum, with the extra medical fees prescribed by the Consolidated Orders of the Local Government Board and other additional charges in respect of lunacy and vaccination.

QUEEN'S COLLEGE, Birmingham.—Co-Professor to share the duties of the Chair of Surgery.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Professors and Lecturers.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—House-Surgeon.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary £100 per annum, with board and lodging.

ST. MARY'S HOSPITAL, Paddington, W.—Secretary. Salary £300 per annum, with board and residence, or £330 without.

SOCIETY OF APOTHECARIES, London.—Twelve examiners.

STAINES UNION.—District Medical Officer. Salary £95 per annum, exclusive of the authorised fees for surgical and midwifery cases.

STAMFORD HILL, STOKE NEWINGTON, &c., DISPENSARY.—Resident Medical Officer. Commencing salary £105 per annum, with an allowance of £50 for fuel and light.

TAWD VALE COLLIERY SICK AND ACCIDENT SOCIETY, Skelmersdale, Lancashire.—Medical man. Salary about £150 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Resident Medical Officer. An honorarium of £20 for the first six months, and £30 for the second six months, will be given, and board and lodging in the hospital provided.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—House-Surgeon. Salary £120 per annum, and £30 a year for dispensing, with furnished apartments and attendance.

Births, Marriages, and Deaths.

BIRTHS.

CLARKE.—On the 21st inst., at Glenavon, Stoke Newington-common, N., the wife of Thomas Furze Clarke, M.R.C.S., of a daughter.

PENN.—On the 13th inst., at Churchill Court, Worcestershire, the wife of Ernest Harrold Penn, Surgeon, Grenadier Guards, of a son.

FOX.—On the 22nd inst., at Gay-street, Bath, the wife of Arthur E. W. Fox, M.B., F.R.C.P.E., of a daughter.

ROBERTSON.—On the 16th inst., at Roehampton, S.W., the wife of A. Milne Robertson, M.D., of a son.

MARRIAGES.

BEATLEY—FENWICK.—On the 21st inst., at the Cathedral, Newcastle-on-Tyne, by the Lord Bishop of the Diocese, assisted by Canon Lloyd and the Rev. G. Fenwick (brother of the bride), William Crump Beatley, M.D., to Frances Mary, daughter of J. G. Fenwick, J.P., of Moorlands, Gosforth, Newcastle-on-Tyne.

BIRDWOOD—MCCANN.—On the 20th ult., at St. Mary's Church, Aston, Roger Alan Birdwood, M.B.Camb., M.R.C.S., to Agnes, youngest daughter of the late Hugh McCann, of Birmingham.

FOWLER—WACHER.—On the 19th inst., at the Parish Church, Herne, Walter Fowler, M.A., M.B., B.C.Cantab, F.R.C.S.Eng., to Alice, fifth daughter of William Wacher, Esq., of Eddington, Herne.

MARCHANT—SPARKE.—On the 14th inst., at the Parish Church, Mansfield, by the Rev. Canon Pavey, John Burrell, eldest son of the late John Marchant, of Hertford, Solicitor, to Marion Guyse, second daughter of Geo. Whitefield Sparke, M.R.C.S.

STARR—EDMONDS.—On the 17th inst., at St. John's the Divine, Richmond, William Henderson Starr, M.R.C.S., L.R.C.P.Lond., Army Medical Staff, to Helena Mary, daughter of Henry Edmonds, of Kew.

DEATHS.

GAMMIE.—On the 20th inst., at Stanhope-gardens, Queen's gate, S.W., Patrick Gammie, Surgeon-General, aged 73.

PATERSON.—On the 12th inst., at Balisera, India (*of fever*), W. Whiteside Paterson, M.B., C.M., M.R.C.S., youngest son of the late Andrew Paterson, of Carston, Ayr, in his 26th year. (By telegram.)

ROGERS.—On the 13th inst., at South Kensington, William Hinds Rogers, M.R.C.S., of Yealmpton, South Devon, aged 64.

TICKELL.—On the 30th ult. (*of septicæmia*), at Lahore, India, Ella Mary Tickell, aged 23, eldest daughter of Henry J. Buck, L.R.C.P., M.R.C.S., of Clapton-common, London, the beloved wife of Charles Tickell, Esq., C.S., of Mardan, Punjab, India, youngest son of the late Lieutenant-General Tickell, C.B., of Cheltenham. Deeply lamented.

TIFFEN.—On the 12th inst., at The Limes, Wigton, Cumberland, Robert Tiffen, M.D., aged 63; also on the 15th inst., Ann, his wife, aged 59.

TURNER.—On the 18th inst., very suddenly, Thomas Aubrey Turner, M.R.C.S.E., of 8, Alexandra-road, Finsbury-park, eldest son of the late Rev. T. B. Turner, of Kingston, Jamaica, aged 42. R.I.P.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 26th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 a.m.
May 20	29·35	W.	47	45	93	55	45	·33	Raining
,, 21	29·78	W.	40	43	99	57	39	·11	Fine
,, 22	29·81	W.	44	44	87	55	40	·15	Cloudy
,, 23	30·06	N.E.	49	45	99	62	41	·03	Cloudy
,, 24	30·22	N.	55	51	80	61	48	...	Fine
,, 25	30·25	N.E.	50	47	88	59	46	·02	Cloudy
,, 26	30·16	N.E.	55	51	110	65	46	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

BLENNORRHAGIA.

R. J. M. (Belfast).—A succinct study on the etiology and treatment of this disorder is given by Dr. Ulisse Malusardi in the *Gazzetta Medica di Roma* of May 1st. His conclusions, set forth as the result of special clinical experience, are these:—1. Gonorrhœa (or blennorrhagia, as he prefers to call it) is a specific local affection, the principle of which consists invariably in the presence of a parasite (*gonococcus*) in the secretion. 2. This infective principle of blennorrhagia with its parasitic basis must be constantly treated from the beginning with antiseptic remedies. 3. Injections of hydrochlorate of cocaine are the sovereign antidote to nocturnal erection or chordee. 4. The use of warm baths, even prolonged, is not contra-indicated, as it materially allays the patient's sufferings and facilitates resolution. 5. Incomparably the most powerful and least hazardous antiseptic is corrosive sublimate in doses increasing from 0·5 per cent. to 1 per cent., after the action of iodoform has been proved to be inefficacious. 6. In the local sequelæ of blennorrhagia advantage is often derived from the use of the sulphate of zinc, combined with that of corrosive sublimate. Tobacco is not forbidden in such cases by Dr. Malusardi, who, on the contrary, agrees with the French specialists in "never having repented of allowing its use."

M.D.—The method referred to is not one to be commended. The proper course would have been for the gentleman to send a card to each of his patients announcing the removal.

J. M. L. is referred to a general notice at the head of this column.

NON-SACCHARINE ALCOHOLIC DRINKS.

To the Editors of THE LANCET.

SIRS,—It occurs to me that you may by an annotation or a short article make known a want and get it supplied. The want I refer to is an alcoholic drink which does not contain sugar. This is especially needed for diabetic and gouty persons; and, except unsweetened gin, which is unpleasant to many, I know of no form of alcohol which is free from sugar. Unsweetened whisky would be especially valuable, and it is almost impossible to get any. Sugar-candy, or sugar in some form, is added to nearly all whisky, to give it roundness and mellowness. Brandy contains a good deal, and even claret a small quantity. I am afraid my letter alone will do no good; but if you recognise the want and make it known it will cease to exist.

Believe me, Sirs, yours truly,

May 21st, 1887. F.R.C.S.

LEECHES.

J. S. C. (Leeds).—The first to employ leeches was Themison, a physician of Laodicea and contemporary of Pompey. He was also the founder of the sect of the Methodici, and is often cited as an authority, especially by Caelius Aurelianus. Dr. Greenhill distinguishes him from the Themison satirised by Juvenal (x., 221), who, it being then the custom with artists of every kind to assume the name of celebrities in the same walk, no doubt called himself after his distinguished predecessor. This assumption of names is one of the many difficulties besetting the historian of ancient medicine.

W. P. F.—We fear that the universities named are, under the circumstances, all practically closed to our correspondent. Cases such as his show very clearly and very painfully the disadvantages under which the London student at present labours.

J. C. should consult one of the old-established firms of surgical instrument makers.

Mr. Larchin.—Dr. Murrell's book.

THE POLLUTION OF THE THAMES.

To the Editors of THE LANCET.

SIRS,—The Metropolitan Board of Works profess that at last they are about to run a satisfactory effluent into the Thames. They carefully avoid, however, to state on what grounds they consider it satisfactory, and it is only by supplementing the figures which they have published by one or two more which their chemist, Mr. Dibdin, has communicated to the Institution of Civil Engineers, that it is possible to ascertain definitively what they now propose to do. Mr. Dibdin states the strength of the sewage now turned into the Thames at 87 grains of foreign matter per gallon. Captain Calver stated it in his report at 265·50 grains, at two hours after high-water, and 189·0 grains at two hours before low water. But let us take Mr. Dibdin's figures, and also his statement that the "pressed cake," which is the most unobjectionable form into which the matter removed from the sewage is converted, contains 58 per cent. of water. It is easy on these data to calculate that the treatment described in the recent report of the Finance Committee of the Board of Works removes 31 grains per gallon of foreign matter from the sewage, and and thus turns into the Thames an effluent containing 56 grains of impurity per gallon, which is, in fact, only a very slightly diluted sewage. Indeed, out of 20 grains of organic matter in solution only 2·6 grains are removed by precipitation. As the result of this very minute improvement, 30 tons 14 cwt. of foul sludge are produced from each million gallons of sewage. Tanks are erected, at a cost of £406,000 for the north of the river alone, to allow this sludge to subside; by which process it is reduced to 18 tons 6 cwt. of drier and thicker sludge. It is this product which it is now proposed to boat away to sea. Its amount, on a daily outflow of 180,000,000 gallons of sewage, is 2938 tons. The total solid matter removed from the sewage is under two tons per million gallons. This is increased by the method now accepted by fifteenfold, and by more than ninefold after the cost of a second subsidence. If this is satisfactory to the Metropolitan Board of Works, the satisfaction will hardly be shared by the frequenters of the Thames, or by the ratepayers of London.

I am, Sirs, yours obediently,

May 20th, 1887. M.INST.C.E.

A DOCTOR'S REAL HOLIDAY.

To the Editors of THE LANCET.

SIRS,—Any middle-aged practitioner must have met with many men who have gone on for years practising until they have at last broken down from worry, work, and *ennui*. Why do not some of our worn and weary brethren copy the clergy, and go far away for three or six months' complete change? I have known more than one doctor work on till compelled to give up practice, and then linger on in misery to himself and a trouble to his friends through years of invalidism. A local clergyman was worn and done up; he left for fourteen months, returning well. I have often known a clergyman go away for six months, and hundreds of the clergy, even in these days of poverty and anti-tithe agitation, go off for two months. But our medical brethren, who have so much worry and night-work, so few holidays, so little society, are just the men who cling to work till the last, and yet many doctors have good private means, and some have lucrative and easy enough practices in addition. There are hundreds of middle-aged and experienced men, who would do the kind of work I am alluding to. I am sure that a fee of fifty guineas would secure for three or four months a competent *locum tenens*, glad to look after a first-class practice and to do full justice to it. Such a course of action would add years to many a weary practitioner's life, and secure that holiday for him that he of all men most needs.

I am, Sirs, yours truly,

May, 1887. S. U. M.

NEW SOUTH WALES.

To the Editors of THE LANCET.

SIRS,—I shall feel much indebted to any of your readers who are conversant with New South Wales if they will give me any information as to the diseases which are most prevalent there. Also, if drugs and instruments are to be easily obtained at any of the large towns; or what drugs and surgical instruments it would be advisable to take out, and any other hints and suggestions will be thankfully received by,

Yours faithfully,

May 23rd, 1887. VIATOR.

"DR. PEACAN'S TREATMENT OF CHOLERA."

IN our issue of the 14th inst. we published an annotation on this subject. Our attention has since then been called to the fact that, excepting some surplusage in after-medication, Dr. Peacan's method of treatment of cholera is in principle, and also in practice, identical with the plan proposed some years ago, and commented on by us at the time, by Dr. Alexander Harkin of Belfast. To this latter observer, who in 1885 published a paper read by him in 1884 before the Ulster Medical Society, in which his theory of the causation and cure of the disorder is expounded, must be ascribed the merit of originality, Dr. Peacan's success in cholera treatment being a striking proof of the soundness of Dr. Harkin's views tested in a different hemisphere.

Etiquette should receive the visit of the neighbour alluded to without prejudice. Time will show if his delay in calling arises from unfriendly or discourteous motives.

Surgeon will find in THE LANCET of Dec. 6th, 1884, p. 1030, a letter which will inform him on the points he mentions. Appeal should be made to the commissioners.

THE BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—We, the undersigned, crave your permission for a few remarks in connexion with the above case. Having allowed a fair time to elapse since attention was called to the matter by the letter of Dr. Barnes, Dr. Broadbent, and Mr. Sydney Jones in your issue of April 9th, and finding only an inconsiderable response to the appeal, we think we might invite further notice to the case. Up to the present date the sum of only £20 9s. 6d. has been received, which goes a short way indeed towards defraying the law costs, amounting to over £160. Mr. Brown being personally known to us, we believe we can confidently state that he became involved in the matter through no indiscretion or imprudence on his part. Indeed, his position was one in which any member of our profession might find himself at any moment, and as he can ill afford to be at such a serious loss, we solicit help on his behalf. As we believe many of his professional brethren would contribute a small amount where they cannot spare much, we desire to make it known that we will gladly receive any contributions, however small, as it is apparent to all that if even a limited number of the medical practitioners of the country would each give half-a-crown, or even less, the whole sum required would be paid off many times over. In conclusion, we might say (should it be wished by those contributing) that the donors will be acknowledged without the amount being specified. Hoping we shall not make this appeal in vain, and thanking you for the interest you have shown in the matter and the courtesy you have extended to us,

We remain, Sirs, faithfully yours,

ROBEY & ROBEY, 129 & 143, St. John's-hill, New Wandsworth.
J. H. T. CONNOR, 49, St. John's-hill, S.W.
R. F. FRAZER, 185, Lavender-hill, S.W.
M. G. BIGGS, 101, Northcote-road, S.W.
MABYN READ, Clapham Common-gardens, S.W.
J. T. BOYD, 73, St. John's-hill, S.W.
JAMES B. LAWRENCE, East-hill, S.W.
T. A. IVES HOWELL, 14, High-street, Wandsworth, S.W.
G. STANLEY MURRAY, Meadow-side, Putney.
RICHD. R. W. ORAM, Cremyll, Wandsworth Common.
R. H. A. HUNTER, Clifton House, Battersea.

May 23rd, 1887.

To the Editors of THE LANCET.

SIRS,—Kindly insert the following:—Amount already acknowledged, £19 8s. 6d.; Arthur Ives Howell, Esq., £1 1s.

I am, Sirs, yours faithfully,

G. STANLEY MURRAY, M.D.

23, Upper Richmond-road, Putney, May 23rd, 1887.

MEDICAL ATTENDANCE ON THE SICK POOR, NOT PAUPERS: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—If "F. T. S." will kindly refer to an annotation in THE LANCET of April 23rd, he will find at p. 791 that you mention in your notice of my paper on the medical attendance of the sick poor: "One feature of Dr. Alderson's views is the suggestion of a graduated scale of payment varying from 6*s.* to 30*s.* per year for single persons, or 30*s.* to £6 per year for families;" and if "F. T. S." would refer to the original pamphlet (and I should be pleased to send him one), he would read at p. 9, "a patient whose income is £150 a year could easily pay out of it from £3 to £5 for medical attendance." There is no allusion to an income "of £312." Although at a much increased rate on the principle of health insurance, as I mentioned in my pamphlet on "The Wants of the General Practitioner," I would even attend patients of a much higher social position and of larger incomes. The £6 per week which has caused your correspondent "F. T. S." "some amusement" is a clerical error. What I meant to have written was that I was willing to attend a patient (with a family) for £5 per year, whose wages averaged £3 per week. I noticed this error directly I read my letter in print, but the mistake appeared to me so obvious that I did not care to trouble you by asking a correction, which I am now anxious to do, for it is this class, whose income is under £200 a year, that requires aid in providing medical skill when illness overtakes its members.

I am, Sirs, your obedient servant,

May 21st, 1887. FRED. H. ALDERSON.

MEDICAL PRACTICE IN THE NEW WORLD.

To the Editors of THE LANCET.

SIRS,—In the expectation that some one nearer home would be able to give the information asked for by "A Constant Reader" in your issue of March 19th, I have refrained from writing; but as THE LANCET for April 9th has just come to hand without anyone giving the desired information, I will endeavour to help him.

As regards the Western States, there are many good openings in them, as in Washington Territory, Oregon, California, Colorado, &c. In all of them British diplomas entitle the holder to registration. Drugs can be obtained with little or no difficulty in almost any part of the country. As regards the climate, some sections of the country, as California and Colorado, suit certain cases of lung disease admirably. Near the coast the effect is bad on cases coming to the country, though natives of the place do not suffer much from chest affections. In British Columbia, before commencing practice a new-comer must present himself before the Medical Council, produce a degree from a recognised college or university, pass an examination in all the primary and final branches, and pay a fee of £20 and an annual fee of £2 10s. These regulations apply to all alike, no mattter what qualification they hold. In this province, moreover, openings are rare, the proportion of doctors to population is about 1 to 800, while in some places, as Victoria and New Westminster, the proportion is as low as 1 to 600, or less. The climate is not particularly suitable for lung diseases, except some cases which do well in the mountains.

I am, Sirs, yours sincerely,

W. A. DE WOLF-SMITH, M.D.

New Westminster, British Columbia, April 26th, 1887.

S. G. T.—1. The holder of a real American or continental degree is warranted in using the title attaching to the degree on his plate, &c.; but it is not a sufficient title in cases of medical certificates. The mere use of it after other and recognised British titles is not necessarily illegal.—2. We know of no means of ascertaining whether any given person is possessed of any degree which he professes to have than by inquiry of the authorities or inspection of the rolls of the university.

L.R.C.P. would probably obtain much of the information he desires by applying to Messrs. Moore and Co., Houndsditch.

AN URGENT CASE.

To the Editors of THE LANCET.

SIRS,—About five years ago you were kind enough to allow the late Dr. A. P. Stewart and myself to make an appeal in your columns for two ladies, sisters, who have had to maintain for about twenty years their brother, Mr. Charles Gaffney, who practised at Buntingford before he was overtaken with insanity. The case is well known to the benevolent societies of the profession, and has repeatedly been generously assisted by them. But it still continues in all its hard facts. The brother has to be maintained from home, and the sisters, to support him and themselves, have to keep a boarding-house. Their increasing age and the hardness of the times have landed them in straits which I do not like to describe; but they are still holding up. Their account of the help of friends, including some who had little to give them, is reviving reading. They are extremely needy and equally deserving. I shall be pleased to be the medium of any sums which any of your readers can spare for them, and to acknowledge the same in your columns.

I am, Sirs, your obedient servant,

25, Highbury-place, N., May, 1887. JAMES GREY GLOVER.

Jadagator (Norwich).—Dr. Pietro Canalis, assistant in the laboratory of general pathology in the University of Turin. His paper, entitled "Contribution to the Study of the Development of the Experimental Pathology of the Supra-renal Capsules, with six Illustrations," was recently presented by Professor Bizzozero to the Royal Academy of Sciences of Turin, in the "Atti" of which it will shortly be published.

Mr. D. C. Trott.—It would be better, we think, to address the communication to the editor of the journal in which the correspondence referred to appeared.

S. Pierrepoint.—The letter is of the nature of an advertisement.

HERNIOTOMY IN YOUNG CHILDREN.

To the Editors of THE LANCET.

SIRS,—In your last issue, page 1029, Mr. Lionel Stretton reports a case in which he successfully performed herniotomy in a child four weeks old, and states that he has "been unable to find any account of operation in so young a child." A moment's reference to Sections 954: 2 of the Medical Digest and Appendix will point to a case by Mr. Macnamara in 1879, aged three weeks, and to another by Mr. Hazlewood in 1884, also aged three weeks, both reported in your valuable journal.

I am, Sirs, obediently yours,

Boundary-rd., N.W., May 21st, 1887. RICHARD NEALE, M.D. Lond.

THREADWORM.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly suggest a mode of treatment for an obstinate case of threadworm in an adult, all the usual remedies having failed, including many changes of climate?

I am, Sirs, yours obediently,

May 17th, 1887. M.R.C.S., &c.

SWEATING OF THE FEET.

A Sufferer.—The question has been repeatedly noticed in our columns. The following is the reply made to a correspondent in our issue of July 7th, 1877, p. 37:—"The complaint is not easily cured. The patient in question should not walk so much as to induce these foot-sweats. Tonic doses of quinine with mineral acid and well-regulated diet should be recommended. Great relief is sometimes afforded by a foot-wash made by adding half an ounce of solution of subacetate of lead, diluted with water enough for a foot-bath. Hebra recommends an ointment composed of equal parts of lead plaster and linseed oil spread on linen, and wrapped round the feet, renewing the application every third day for nine days. Laced shoes are preferable to boots."

Dr. Ridley Bailey.—There are several good filters in the market, amongst which it is not easy to indicate the best. The ease with which the apparatus may be cleansed, and the efficiency of the filtering material, are of course the chief points to be kept in view in purchasing a filter.

Hertford.—We know of no other societies of the kind at present in existence than the one mentioned.

A WARNING.

To the Editors of THE LANCET.

SIRS,—I shall be glad if you will allow me through THE LANCET to warn my professional brethren that an impostor is going about soliciting alms representing himself to be Mr. Wm. Ashton Patchett, late of Shaw, and stating that he is a widower with two children, and entirely destitute. To confirm his statement he produces some original testimonials from Sir W. Roberts, Mr. R. Lund, &c., which were given to me when I was a candidate for a hospital appointment seventeen years ago, and which by some means he has obtained possession of. I have come to the conclusion that the scamp must be a man who acted as assistant to me for a few days some time ago, and who stole not only the testimonials, but a number of my medical books also. I am informed that in London he has only too successfully imposed upon several benevolent medical gentlemen. I hope this warning may nip in the bud the rascal's extortions. I am, Sirs, yours faithfully,

Shaw, May 18th, 1887. W. A. PATCHETT, M.R.C.S. Eng., L.S.A.

L.K.Q.C.P.I., L.M.—We are not prepared to recommend the particular steps to be taken; but it is obviously right that in public papers, posters, &c., there should be no misstatement, and our correspondent would be justified in objecting to the description and title given as inaccurate. In answer to the third question, our correspondent, with the qualifications mentioned, can recover in medical and midwifery cases, but not in surgical ones.

R.—Our correspondent should consult his legal adviser. A great deal might turn on the details of the course taken in the past by the respective parties.

INTESTINAL OBSTRUCTION CAUSED BY IMPACTED GALL-STONE.

To the Editors of THE LANCET.

SIRS,—In your issue of April 30th Dr. Allen reports a case of operation for intestinal obstruction caused by impacted gall-stone, and states that he can find no such case on record. I beg to refer him to a similar case published by me in THE LANCET for 1881. A previous case by Mr. Bryant is also on record. Both of these were fatal. I think also one or two cases have been published since, but do not remember the particulars of them.

I am, Sirs, yours truly,

Reigate, May 13th, 1887. J. WALTERS, M.B., &c.

CHRONIC RHEUMATIC ARTHRITIS.

To the Editors of THE LANCET.

SIRS,—Can any member of the profession kindly inform me what drug he has found most efficacious for relieving pain and promoting sleep in a case of chronic rheumatic arthritis? An elderly person has had this affection for the past two years, and now suffers a good deal at night from pain in the joints and sleeplessness. A great variety of medicines have been tried, including potass. iodid. and potass. bromid., but latterly with very little effect. Morphia cannot be given owing to the patient having a weak heart.—I am, Sirs, yours truly,

May 24th, 1887. MEDICUS.

Dr. Haddon (Melrose).—We shall be glad to receive the paper, and to give it our attention.

TREATMENT OF TÆNIA SOLIUM.

To the Editors of THE LANCET.

SIRS,—I should be much obliged if you would insert this letter in your next issue, on the chance that some of your numerous readers might be able to help me. I have a patient suffering from tænia solium, and have tried all kinds of remedies, but fail to do more than get rid of small quantities. I have used kousso in full doses, extract of male fern, and pelleterin. Any hints would oblige.—I am, Sirs, yours very truly,

May, 1887. PUZZLED.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Savage, London; Mr. Barwell, London; Dr. Bateman, London; Mr. Lawson Tait, Birmingham; Dr. Cosgrave, Dublin; Mr. Hulke; Dr. Graham Brown, Edinburgh; Dr. Collier, Oxford; Dr. Handford, Nottingham; Mr. Patchett, Shaw; Surgeon-Major Stevenson, Karauli; Mr. Henry Lee, London; Mr. W. M. Hardy, Newcastle-on-Tyne; Messrs. Lea and Nightingale, Liverpool; Mr. L. Stephens, Holdsworth; Mr. Fitzroy Benham, London; Dr. F. E. Wilkinson, Leamington; Dr. Stanley Murray, Putney; Mr. J. T. Maclagan, Edinburgh; Messrs. Maple and Co., London; Mr. L. G. Smith, Tottenham; Messrs. Hopkinson and Co., Notts; Mr. Lockwood, London; Dr. M. J. Lewis; Messrs. Bush and Co., London; Dr. Wilkinson, Shaftesbury; Mr. Wilding, Church Stretton; Dr. R. Neale, London; Mrs. Johnson; Messrs. Waterlow and Co., London; Dr. F. H. Alderson, London; Messrs. Mertens and Co., London; Dr. Whipham, London; Major Ormond; Messrs. Condy and Co., London; Mr. H. H. Graham, London; Messrs. Mitchell and Co., London; Mr. W. Curran; Mr. W. Fuller, Stoke; Mr. Bates, New York; Surgeon-General Stewart; Dr. Easmon, Accra; Messrs. Smith and Son, Birmingham; Mr. F. B. Jessett, London; Messrs. Grace and Co., Bristol; Mr. Meadows, St. Leonards; Messrs. Imhof and Co.; Mr. Greenwood, Stamford; Dr. W. Duncan; Messrs. Iliffe and Son, London; Mr. Fox, Birmingham; Mr. Goldsmith, Sutna; Mr. A. King, Margate; Dr. Haddon, Melrose; Prof. Axe; Dr. Branthwaite, Twickenham; Mr. Blackett, London; Mr. Bunn, London; Mr. Page, Taunton; Mr. Woodland, London; Mr. Moullin, London; Mr. Lewis, Birmingham; Mr. Russell, Liverpool; Mr. Unsworth, Liverpool; Mr. Bonten, Norwood; Mr. Brearley, Batley; Mr. Dewhurst, Lambeth; Mr. Botwood, Ipswich; Mr. Roe, Manchester; Dr. Benthall, Southsea; Mr. Freeman, London; Mr. Holmes; Messrs. Brown and Co., Glasgow; Dr. Buck, Clapton; Messrs. Warren, Bristol; Mr. R. Freeman, London; Mr. Joffery, Eastbourne; Messrs. Bennett and Co., London; Dr. Russell Reynolds, London; Dr. Bilery, Plympton; Dr. Thomas, Glasgow; Mr. Silcock, Bath; Mr. W. Lund; Mr. Barron, Manchester; Mr. W. P. Reynolds; Mr. Jas. Swain, Bristol; Mr. G. S. Perkins, Streatham; A Country Practitioner; Pro Bono Publico; M.Inst.C.E.; Alpha; F.R.C.S.; Ambulance; H.M.M. Staff; One who owed much to Wilson Fox; M.R.C.S.; M.D.; Visitor; Physician, Southsea; Etiquette; S. U. M.; F.R.C.S.E., Bromley; Secretary, Bradford; M.D., Hampstead-road; A Guy's Man; Puzzled.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Bland, London; Mr. Brown, York; Mr. Briscoe, Bolton; Messrs. Tunnicliff and Co., Hanley; Mr. Masters, Weston-super-Mare; Messrs. Farwig and Co., London; Dr. Dowding, Haughley; Messrs. Burgoyne and Co., London; Messrs. Thorn, London; Mr. Morse, Exeter; Mr. Bone, Portsmouth; Dr. Collier, Cranbourne; Dr. McLintock, Shrewsbury; Mr. Whiteley, London; Miss Thompson, Oldham; Mr. Hamel, Tamworth; Dr. Taylor, Newcastleton; Mr. Campion, Louth; Miss Selby, Surbiton; Dr. Edwards, Harrold; Capt. Blount, Chelsea; Mr. Klein, Manchester; Mr. Smith, Bromley; Dr. Swansea, York; Mr. Munday, Swindon; Mr. Haines, Lincoln; Mr. Bishop, Calne; Mr. Harrison, Liverpool; Mr. Cornish, Manchester; Mr. Jones, Bristol; Mr. Corwen, Bridgewater; Mr. Kitcher, Whitehaven; Mr. Webster, Darlington; Mr. Featherstone; Messrs. Deeks and Co., London; Mr. Lownds, Sunderland; Suburb; Epilepsy; M.O.H.; Dr. M., London; Medicus, Blandford; H. R., Shrewsbury; M.D., Oxford; Medicus, Leeds; M., Cheltenham; Locum, Bristol; Galen; Superintendent, St. John's-wood; A. Z., Handsworth; Ozone; A.T.; L. W.; Medicus, Furneaux Pelham; S. R. B., Brighton; Alpha, Manchester; B. A. S., North Luffingham; B. B. B.; Oxon; Kappa; B. R. H., Egham.

Light, Barnsley Independent, Southend Standard, Isle of Wight County Press, Newcastle Daily Chronicle, Jubilee Souvenir (illustrated), &c., have been received.

Medical Diary for the ensuing Week.

Monday, May 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, May 31.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Professor Victor Horsley: The Modern Physiology of the Brain and its Relation to the Mind.

Wednesday, June 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Lockwood, Dr. Bluett, Dr. Malins, and others.—Dr. Cullingworth: A case of Cæsarean Section.—Dr. Champneys: On the Separation and Expulsion of the Membranes.—Dr. Walter Griffith: On Tubo-ovarian Cysts.

Thursday, June 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of the Organic World.

Friday, June 3.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. H. Percy Dunn will show the specimens which have been added to the Museum of the West London Hospital during the session.—Mr. F. Swinford Edwards: A collection of Urinary Calculi.—The President: An Hypertrophied Heart.—Dr. P. S. Abraham: Microscopical Sections of Ossification of the Cauda Equina.—Brigade-Surgeon W. Curran: Sketches of Aortic Aneurysm and Sarcoma of the Lung.—Dr. Bullock: A Skull from a case of Hereditary Syphilis.—Sir Andrew Clark: A Frequently Successful and Speedy Method of Treating Hay Fever.
ROYAL INSTITUTION.—9 P.M. Mr. David Gill: The Application of Photography to Astronomy.

Saturday, June 4.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor John W. Hales: Victorian literature

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months £0 16 3
TO CHINA AND INDIA ..... One Year 1 16 10
TO THE CONTINENT, COLONIES, AND UNITED STATES ..... Ditto 1 14 8

Post Office Orders should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable at the Post Office, Charing-cross.

Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

ADVERTISING.

Books and Publications (seven lines and under) ...	£0	5	0
Official and General Announcements	0	5	0
Trade and Miscellaneous Advertisements	0	4	6
Every additional Line	0	0	6
Front Page ... ... per Line	0	1	0
Quarter Page	1	10	0
Half a Page	2	15	0
An entire Page	5	5	0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.